



COUNTY BOROUGH OF SUNDERLAND.

ANNUAL REPORT

ON THE

Health and Sanitary Condition
of Sunderland,

FOR THE YEAR 1908.

HENRY RENNEY, M.D., B.S., D.Hy., D.P.H.,


MEDICAL OFFICER OF HEALTH,

MEDICAL SUPERINTENDENT OF THE BOROUGH
SANATORIUM.

SUNDERLAND :

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TOWN HALL,

SUNDERLAND.

TO THE CHAIRMAN AND MEMBERS OF THE
HEALTH COMMITTEE.

GENTLEMEN,

I beg to submit, for your consideration, my
Report on the Health of the Borough and the
work of the Health Department for the year
1908.

I am, Gentlemen,

Your obedient Servant,

HENRY RENNEY,

Medical Officer of Health.

May, 1909.

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STATISTICAL SUMMARY, 1908.



Area of the Borough	3,357 acres.
Inhabited Houses (Census, 1901)	21,473
Population (Census, 1901)	146,077
„ (Estimated, 1908)	157,495
Births	5,180
Birth-rate per 1,000 inhabitants	32·9
Deaths	2,754
Death-rate per 1,000 inhabitants ...	17·5
„ from Zymotic Diseases	1·8
„ Infantile	144
„ from Phthisis	1·2

County Borough of Sunderland.

HEALTH DEPARTMENT.

ANNUAL REPORT

FOR THE YEAR 1908.

POPULATION.

The population, estimated to the middle of 1908, was 157,495, being an increase of 1,636.

The population is an estimation based on the Census Returns. This estimate is liable to error; indeed it is never quite accurate, and it would greatly facilitate a correct return of the population for each inter-censal year if the Census were taken every five years instead of every ten as at present.

Table A shows the estimated population in each of the three registration sub-districts of the Borough, the area of these districts, and the number of people per acre.

TABLE A.

	Population.	Area in Acres.	Density of Population per Acre.
Sunderland East.....	58,252	897	64·9
„ West	64,724	1,724	37·5
„ North	34,519	736	46·7
Borough	157,495	3,357	46·9

Table B shows the Age and Sex Distribution (estimated to the middle of the year). For instance, taking line No. 1—there were in 1908 estimated to be 4,599 persons living under the age of 1 year, of whom 2,285 were males and 2,314 females.

TABLE B.

At Ages.	Persons.	Males.	Females.
Under 1 year	4599	2285	2314
1 to 5 years	15283	7707	7575
5 „ 10 „	16781	8393	8388
10 „ 15 „	16461	8323	8138
15 „ 20 „	16696	8051	8645
20 „ 25 „	16045	7450	8595
25 „ 30 „	14256	6875	7381
30 „ 35 „	11087	5332	5755
35 „ 40 „	9989	4921	5068
40 „ 45 „	8002	3763	4239
45 „ 50 „	7545	3757	3788
50 „ 55 „	6078	3160	2918
55 „ 60 „	5077	2548	2429
60 „ 65 „	3752	1841	1911
65 „ 70 „	2521	1181	1340
70 „ 75 „	1770	821	949
75 „ 80 „	916	430	486
80 „ 85 „	504	168	336
85 and upwards	134	49	85
Totals	157495	77155	80340

CENSUS POPULATION.

The Census population of 1901 was 146, 077 ; 71,533 being males, and 74,494 females.

The Census populations of the various Wards were as follows :—

Bishopwearmouth	9,964	Monkwearmouth-Shore...	10,709
Bridge	12,944	Pallion	8,560
Central	9,433	Park	9,643
Colliery	8,179	Roker	6,975
Deptford	10,501	St. Michael's	8,098
East	9,524	Sunderland	9,829
Hendon	5,750	Thornhill	9,230
Monkwearmouth	5,869	West	10,869

MARRIAGES.

The number of Marriages registered in the Registration District of Sunderland (which, in addition to the Municipal Area, includes the Townships of Ford, Tunstall, Ryhope, Fulwell, Southwick, and Hylton), during each of the past ten years is as under:—

Year.	No. of Marriages.	Year.	No. of Marriages.
1899	1,630	1904	1,545
1900	1,623	1905	1,572
1901	1,625	1906	1,757
1902	1,559	1907	1,683
1903	1,457	1908	1,361

BIRTHS.

The Births registered during the year 1908 numbered 5,180 the birth-rate being 32·9 per 1,000 of the population.

The number of births in 1908 shows a decrease of 150 as compared with that of the previous year, and the Birth-rate is 1·3 lower. The rate is 5·9 per 1,000 higher than the average birth-rate of the 76 large towns.

The Birth-rates during the 1st, 2nd, 3rd, and 4th quarters were 34·2, 36·5, 31·1, and 29·7 per 1,000 respectively.

The Birth-rate in the 76 large towns of England and Wales was 27·0 per 1,000 of the population.

Table showing the number of Births of Males and Females, together with the Birth-rates for the 10 years, 1899 to 1908:—

TABLE C.

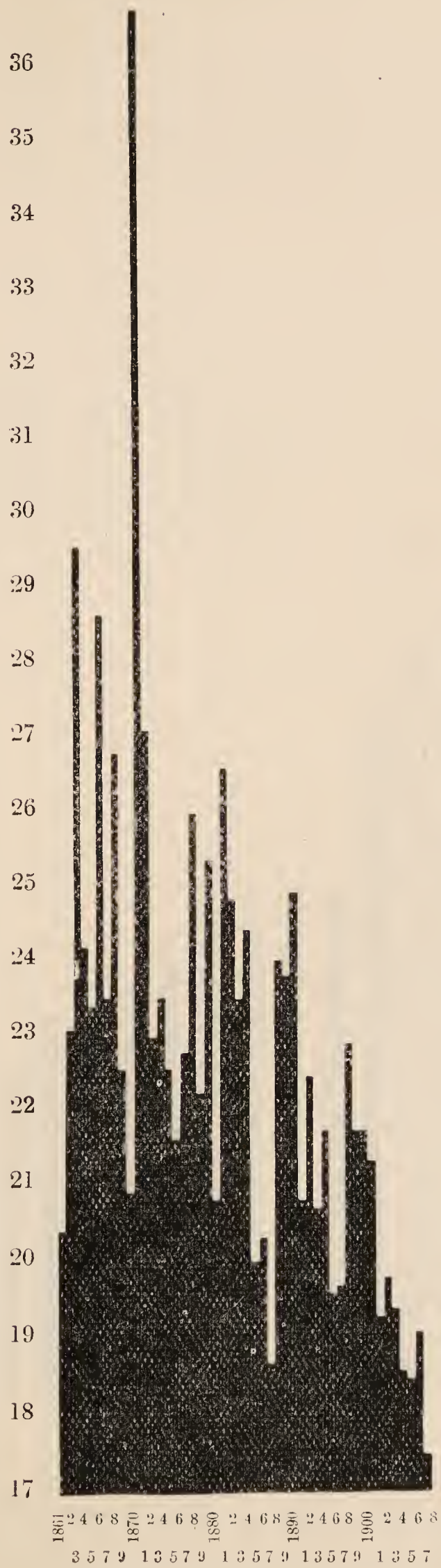
Year.	Births.			Birth Rate.
	M.	F.	Total.	
1899	2677	2507	5184	36·1
1900	2720	2536	5256	36·3
1901	2588	2691	5279	36·0
1902	2742	2649	5391	35·7
1903	2598	2597	5195	34·5
1904	2654	2540	5194	34·3
1905	2615	2608	5223	34·2
1906	2786	2589	5375	34·8
1907	2746	2584	5330	34·2
1908	2628	2552	5180	32·9

FEMALES AT CHILD-BEARING AGE.

For comparison of birth-rates it is more important to know the number of children born per 1,000 women at child-bearing age, than the number born per thousand of the population. The following table is an estimation of the number of females living in Sunderland at child-bearing years, for the last ten years, (calculated from the Census Returns for the years 1891 and 1901), and the number of children born in each year:—

YEAR.	Estimated Number of Women at Child-bearing Age.	Number of Children Born.	Number of Children Born per 1000 Women at Child-bearing Age.
1899	35404	5184	146
1900	35834	5256	146
1901	36269	5279	145
1902	36709	5391	147
1903	37154	5195	139
1904	37605	5194	138
1905	38062	5223	137
1906	38755	5375	138
1907	39197	5330	136
1908	39683	5180	130

Showing Death-rates per 1000 from 1861 to 1908.



Comparative view of the Principal Causes of Death

(drawn to scale) during the year 1908.

No. of
Deaths.

360
350
340
330
320
310
300
290
280
270
260
250
240
230
220
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0

Bronchitis

All tubercular

Pneumonia

Heart and Vessels

Debility & Marasmus

Consumption

Old Age

Nervous Diseases

Stomach & Intestines

Cancer

Whooping Cough

Apoplexy

Premature Birth

Other Tubercular

Diarrhoea

Accidents

Convulsions

Diphtheria

Measles

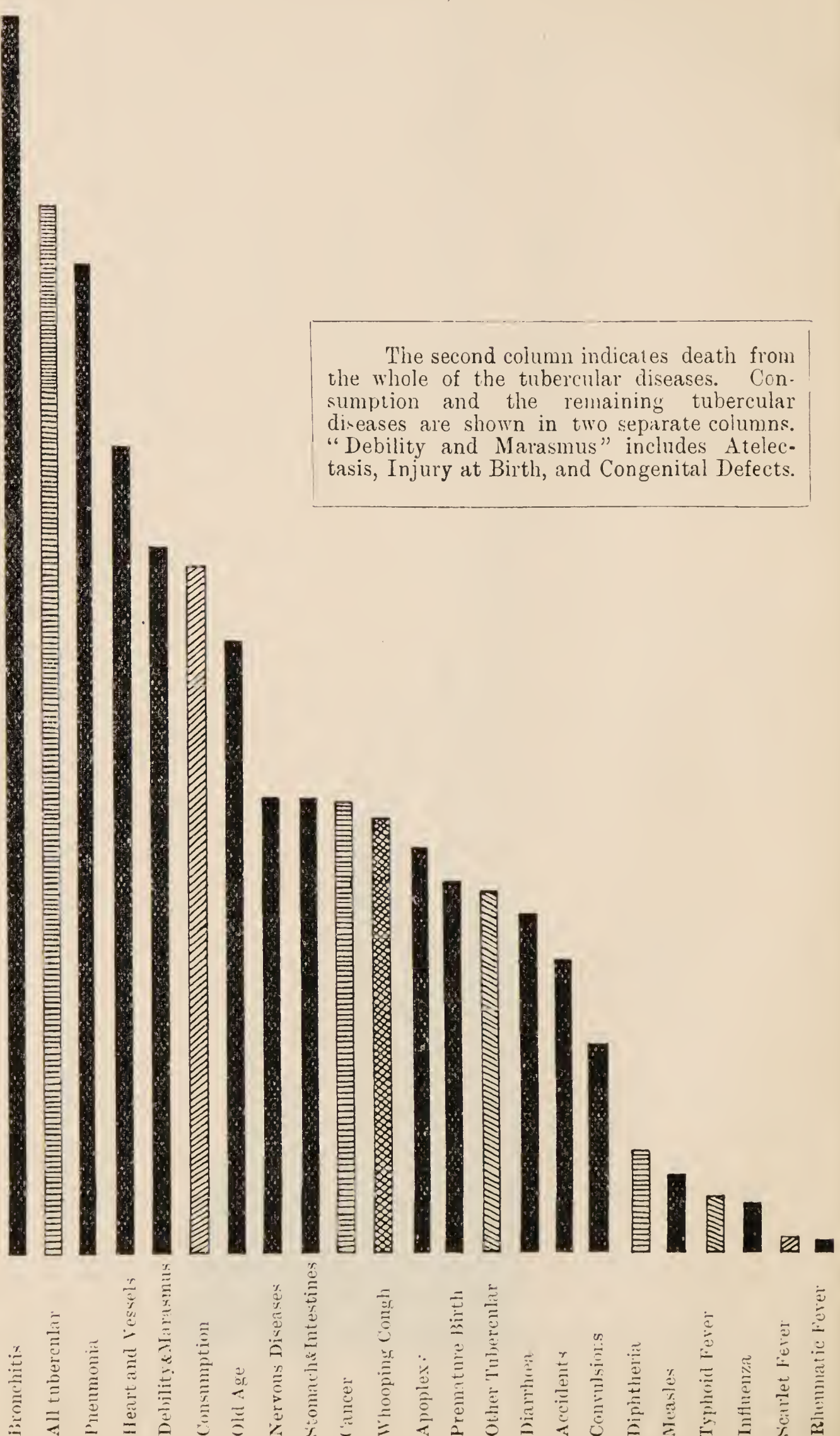
Typhoid Fever

Influenza

Scarlet Fever

Rheumatic Fever

The second column indicates death from the whole of the tubercular diseases. Consumption and the remaining tubercular diseases are shown in two separate columns. "Debility and Marasmus" includes Atelectasis, Injury at Birth, and Congenital Defects.



THE DEATH-RATE.

It is satisfactory to note that there has been an appreciable fall in the Death-rate for the year 1908, as compared with 1907. There is also a nearer approximation to the average Death-rate of the 76 large towns—the difference having been reduced from 3·7 in 1907 to 2·6 in 1908.

The Deaths registered during the year (including the Deaths in the Borough Asylum) numbered 2,754. The Death-rate per 1,000 is therefore 17·5, being a decrease of 1·6 per 1,000, as compared with 1907. On comparing the Death-rate with the average of the previous ten years there is a decrease of 2·7 per 1,000.

The Death-rates in the quarters during 1908 were as follows:—

1st quarter—Deaths,	862...	Rate	21·9	per 1,000.
2nd „	616	„	15·6	„
3rd „	580	„	14·8	„
4th „	696	„	17·7	„

The Death-rates in the Registration Sub-Districts of the Borough were as follows:—

Sunderland East	20·1	per 1,000.
Sunderland West	15·5	„
Sunderland North	16·8	„

The average Death-rate for the 76 large towns of England and Wales for 1908 was 14·9 per 1,000.

The following Table shows the Death-rate from all causes, from three principal Zymotic Diseases, and the Infantile Mortality figure of the 76 towns of England and Wales, for 1908:—

TABLE D.

Towns.	Death Rates per 1000 from all causes.	Death Rate per 1,000 from			Infant Mortality per 1000 Births.
		Diph- th ria	Enteric Fever.	Diarrhœa.	
London	13·8	0·15	0·04	0·53	113
Croyden	12·8	0·24	0·03	0·30	101
Willesden	10·5	0·08	0·04	0·35	99
Hornsey	8·3	0·07	0·02	0·17	62
Tottenham	12·5	0·17	0·05	0·40	96
West Ham	13·8	0·17	0·09	1·00	129
East Ham	10·3	0·45	0·03	0·34	110
Leyton.....	10·4	0·14	0·03	0·22	77
Walthamstow.....	10·5	0·15	0·10	0·34	106
Hastings.....	11·7	0·03	0·03	0·04	81
Brighton	14·7	0·07	0·03	0·22	104
Portsmouth.....	13·7	0·23	0·12	0·26	98
Bournemouth.....	12·9	0·15	0·03	0·11	83
Southampton.....	12·9	0·13	0·04	0·52	113
Reading	11·8	0·24	0·08	0·31	100
Northampton.....	11·5	0·04	0·05	0·25	97
Ipswich	14·3	0·13	...	0·37	107
Great Yarmouth...	15·0	0·09	0·09	0·51	125
Norwich	14·1	0·21	0·29	0·39	115
Plymouth	15·0	0·12	0·08	0·48	129
Devonport	13·3	0·19	0·18	0·50	125
Bristol.....	13·5	0·16	0·02	0·34	126
Hanley	18·5	0·22	0·23	0·86	166
Burton-on-Trent..	12·7	0·13	0·09	0·30	112
Wolverhampton...	14·3	0·31	0·10	0·43	132
Walsall	14·9	0·11	0·08	1·18	147
Handsworth	10·7	0·16	0·01	0·25	86
West Bromwich...	16·1	0·28	0·04	0·74	138
Birmingham	15·9	0·18	0·08	0·80	145
King's Norton ...	10·4	0·28	0·07	0·21	85
Smethwick	13·4	0·12	0·05	0·62	134
Aston Manor.....	12·5	0·10	0·02	0·95	127
Coventry	15·4	0·09	0·01	0·60	96
Leicester	12·9	0·03	0·03	0·50	132
Grimsby	14·4	0·16	0·19	0·79	140
Nottingham	15·2	0·11	0·11	0·63	146
Derby	13·0	0·28	0·04	0·34	112
Stockport	18·2	0·13	0·06	1·24	168
Birkenhead	15·8	0·10	0·09	0·77	136
Wallasey	13·6	0·11	0·07	0·40	102
Liverpool.....	19·2	0·17	0·10	0·84	142
Bootle	18·2	0·22	0·07	0·90	147
St. Helens	15·7	0·18	0·13	0·83	122

TABLE D.—Continued.

TOWNS.	Death Rates per 1000 from all causes.	Death Rate per 1000 from			Infant Mortality per 1000 Births.
		Diph- theria.	Enteric Fever.	Diarrhœa	
Wigan	18·0	0·11	0·29	0·99	156
Warrington.....	17·0	0·21	0·15	0·62	134
Bolton	15·5	0·09	0·19	0·85	149
Bury.....	15·8	0·15	0·07	0·54	130
Manchester.....	18·2	0·18	0·11	0·93	151
Salford.....	17·8	0·50	0·16	0·98	153
Oldham	19·8	0·15	0·08	1·14	160
Rochdale.....	18·4	0·19	0·10	0·81	169
Burnley	17·9	0·12	0·11	1·69	201
Blackburn	15·6	0·09	0·11	0·83	150
Preston	17·9	0·09	0·21	0·95	154
Barrow-in- Furness	13·1	0·07	0·08	0·43	111
Huddersfield	17·0	0·09	0·10	0·53	111
Halifax	14·1	0·11	0·10	0·16	101
Bradford	15·5	0·16	0·10	0·65	143
Leeds	15·3	0·09	0·05	0·68	138
Sheffield	15·8	0·08	0·05	0·86	140
Rotherham	16·0	0·11	0·26	1·05	148
York.....	12·6	0·08	0·09	0·49	106
Hull	16·1	0·18	0·08	1·37	145
Middlesbrough ...	19·7	0·31	0·16	1·88	159
Stockton-on-Tees.	18·0	0·15	0·11	0·52	153
West Hartlepool...	12·0	0·14	0·06	0·19	114
Sunderland	17·5	0·17	0·09	0·66	144
South Shields.....	15·4	0·19	0·05	0·64	134
Gateshead	14·9	0·20	0·03	0·98	149
Newcastle-on- Tyne	16·0	0·12	0·05	0·46	137
Tynemouth	17·5	0·10	0·07	0·72	137
Newport (Mon.)...	16·2	0·18	0·09	0·32	133
Cardiff	12·9	0·11	0·03	0·61	126
Rhondda	18·4	0·21	0·16	1·94	184
Merthyr Tydfil ...	19·1	0·11	0·14	1·00	179
Swansea	18·6	0·04	0·01	0·79	152

TABLE E.

Table E. shows the deaths from the principal diseases in the four quarters of 1907 and 1908.

DISEASES.	1908.				1907.				190 ⁸ 7	190 ⁶ 6
	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Total. (52 Weeks.)	Total. (52 Weeks.)
Smallpox .....	...	...	...	...	...	...	...	...	...	...
Measles	1	1	1	20	12	66	18	8	23	104
Scarlet Fever .....	...	2	2	1	4	1	9	5	5	19
Diphtheria	8	9	7	4	16	15	7	4	28	42
Whooping Cough..	74	39	3	4	8	7	6	21	120	42
Enteric Fever.....	6	...	7	3	2	1	2	4	16	9
Diarrhoea	1	6	44	42	7	5	28	25	93	65
Syphilis	3	...	1	3	1	1	2	3	7	7
Puerperal Fever...	...	...	1	...	1	...	...	...	1	1
Alcoholism	2	...	1	...	7	4	2	...	3	13
Rheumatic Fever..	1	...	1	2	6	3	1	3	4	13
Cancer	33	29	29	34	33	31	26	28	125	118
Tabes Mesenterica	7	6	4	10	12	11	10	7	27	40
Tubercular										
Meningitis	10	7	5	5	7	12	4	10	29	33
Phthisis	52	54	37	49	66	53	50	40	192	209
Other Tubercular										
Diseases	11	13	6	13	9	9	4	7	43	29
Premature Birth...	26	25	25	25	29	17	25	22	101	93
Old Age	54	37	39	38	36	24	34	31	168	125
Diseases of the										
Nervous System	82	75	77	61	86	91	76	79	295	332
Diseases of the										
Heart	62	48	39	59	84	62	50	61	208	257
Bronchitis	146	64	40	92	125	99	34	102	342	360
Pneumonia and										
Pleuro Pneumonia	63	42	22	49	78	55	36	52	177	221
Broncho										
Pneumonia	41	15	10	32	33	30	18	27	98	108
Diseases of the										
Digestive System	36	27	46	38	35	34	45	48	147	162
Inflammation of										
the Kidneys and										
Bright's Disease	18	15	18	16	21	25	14	22	67	82
Accident	14	18	25	19	30	29	23	20	76	102
Homicide.....	...	...	...	1	...	...	...	...	1	...
Suicide	3	1	3	2	2	4	5	2	9	13

INFECTIOUS DISEASES.

TABLE F.

Showing the number of NOTIFICATIONS of Infectious Diseases.

Year.	Smallpox.	Scarlet Fever.	Diphtheria.	Enteric Fever.	Typhus Fever.	Continued Fever.	Erysipelas.
1899	2	949	19	297	...	48	...
1900	2	754	50	301	...	32	62
1901	...	744	76	244	...	22	98
1902	9	814	63	211	...	19	111
1903	32	758	94	121	...	14	125
1904	34	198	74	128	...	9	117
1905	2	184	170	139	...	6	105
1906	...	283	231	134	...	7	106
1907	1	498	206	92	...	6	96
1908	1	325	189	132	...	1	95
Average	8	551	117	180	...	16	102

TABLE G.

Table G. gives the DEATHS from Infectious Diseases during the last 10 years. I have already commented on these.

Years.	Smallpox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Enteric Fever.	Typhus Fever.	Continued Fever.	Diarrhea.
1899	...	42	40	9	57	51	...	6	175
1900	...	87	39	22	30	56	...	...	150
1901	...	64	45	29	104	43	...	2	254
1902	1	82	25	14	48	40	...	...	69
1903	2	121	36	31	48	22	...	...	93
1904	2	59	3	27	64	33	...	...	163
1905	...	102	1	30	58	31	...	...	122
1906	..	15	5	36	56	20	...	...	174
1907	...	104	19	42	42	9	...	...	65
1908	...	23	5	28	120	16	...	...	93

SMALLPOX.

Only one case of this disease was notified, the circumstances of which are set out on page 25. We cannot continue to enjoy immunity from the ravages of Smallpox indefinitely, however, and it is my duty to utter a note of warning as to the future. The Vaccination Act of 1907 is slowly but surely doing its work, and the results will be seen should Smallpox be introduced in the future. In consequence of the passing of this Act, there were in 1908 445 "conscientious" objectors to vaccination, as against 66 in 1907. That is to say, there are now *at least* 445 more children unprotected against Smallpox, and as this is essentially a disease of children they would be the first to be attacked, making some hundreds of foci from which the disease would spread.

Doubtless the number of these unprotected persons will go on increasing in still greater proportion as the years roll on, until we have an object lesson such as is recorded in pre-vaccination times, during which it was not uncommon to find that one-sixth of the total number of deaths was due to Smallpox.

MEASLES.

Epidemics of this disease occur in all towns, usually every second year. In the year 1908 there were only 23 deaths, compared with 104 in the previous year, in which the disease was epidemic. If children were not sent to school until they were at least five years old much of this regrettable mortality would be prevented.

Schools closed on account of Measles:—

Feb. 28.	Hendon Valley Infants,	Closed for 5 days.
Mar. 7.	James William Street	" " "
" 11.	Hylton Road	" " "
" 12.	Hendon Valley	" " 3 weeks.
Nov. 18.	Hylton Road	" " "
" 21.	Pallion	" " "
" 30.	Diamond Hall	" " "

Dec.	1.	Diamond Hall	Juniors, Closed for 3 weeks.
„	2.	St. Joseph's	Infants, „ „
„	17.	High Barnes	„ „ „
„	19.	Chester Road	„ „ „
„	21.	Redby	„ „ „ *
„	23.	Simpson Street	„ „ „ in-
stead of the usual fortnight's holiday.			

From the whole of the schools (High Barnes and Redby excepted) there were only 16 fresh cases of Measles after re-opening.

* High Barnes and Redby Schools had been closed one week previous to the schools' concert in the Victoria Hall. The bringing together again of such a large number of children at the concert, where, unfortunately, some children were found to be in the initial stage of Measles, caused the infection to spread to many others in these two schools, and possibly others. This necessitated a second closing, in January, 1909.

SCARLET FEVER.

There were 325 cases of this disease notified, being 172 less than during the previous year; there were only 5 deaths, compared with 19 during the previous year.

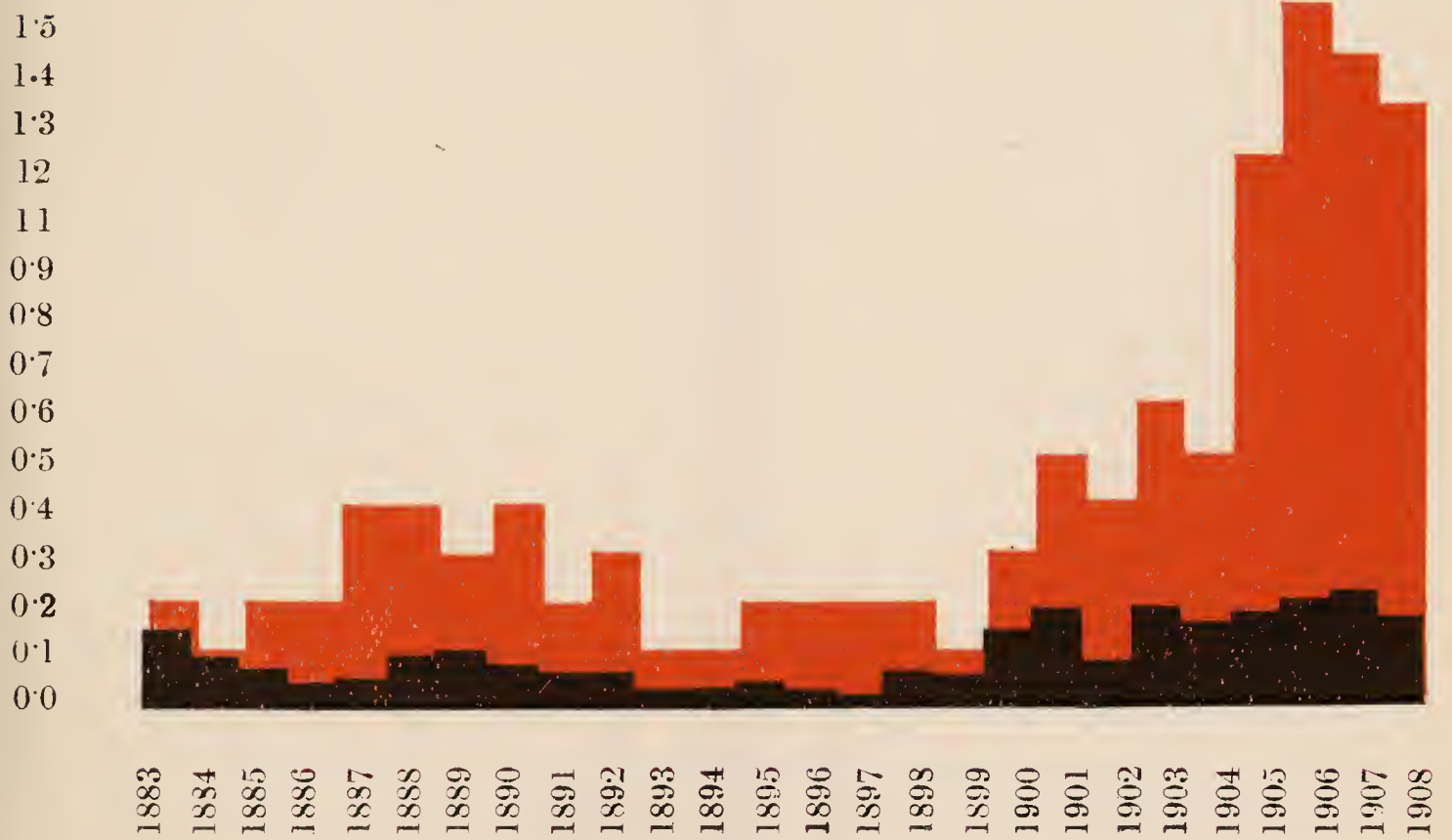
DIPHTHERIA.

In 1908, 189 cases of Diphtheria were notified, with 28 deaths, giving a case-fatality of 14·8 per cent., a reduction of 5·6 per cent. on that of 1907.

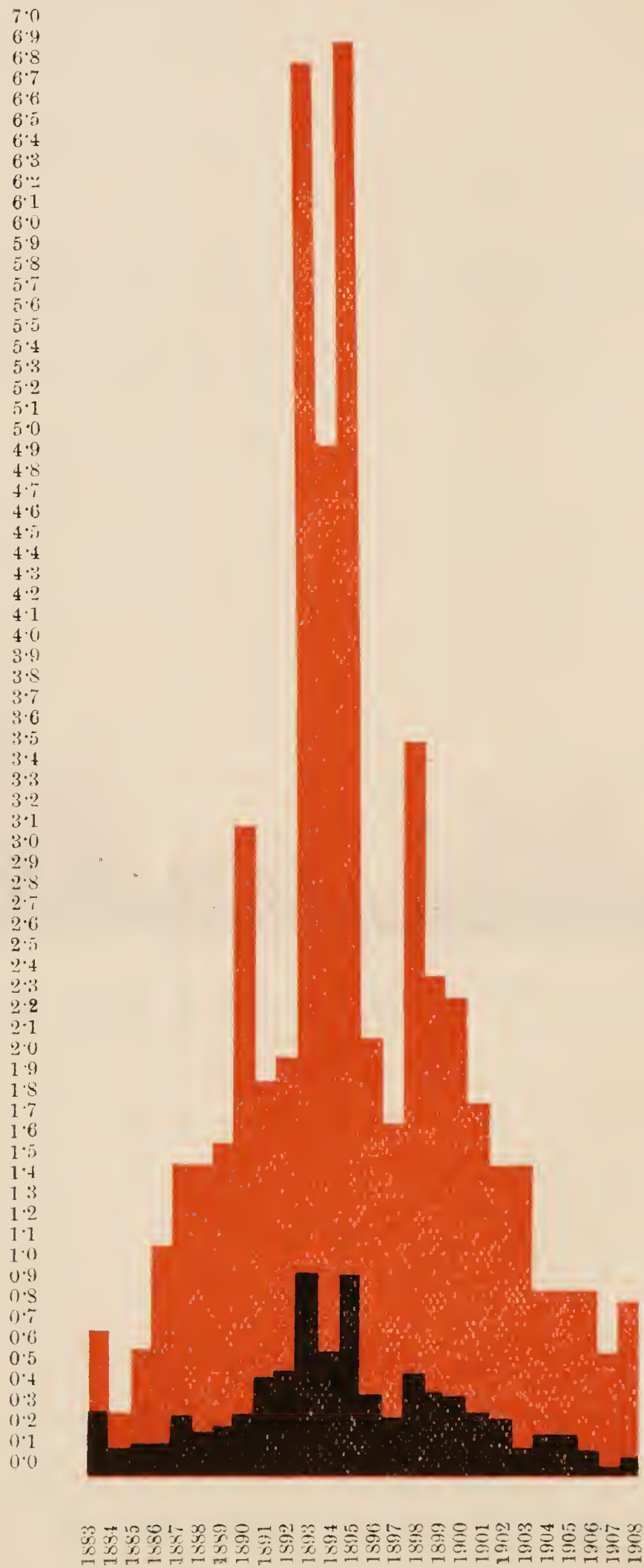
There is not now nearly so high a mortality from Diphtheria as there was in previous years, as the following table shows:—

Year.	Case Mortality.
1899.....	47·3 per cent.
1900.....	44·0 „
1901.....	38·1 „
1902.....	22·2 „
1903.....	33·0 „
1904.....	36·4 „
1905.....	18·0 „
1906.....	11·2 „
1907.....	20·4 „
1908.....	14·8 „

Diphtheria Notifications (in red) per 1000 (1883 to 1908).
Deaths per 1000 (in black).



Notifications (in red) of Typhoid and Continued Fevers per 1000 of the population—1883 to 1908—together with the Death-rate (in black) per 1000 for the same period.



WHOOPING COUGH.

There was a considerable increase in the number of deaths due to the above cause. There were 120 deaths in 1908, or nearly three times as many as in 1907, the disease having been prevalent during the first and second quarters of the year, principally in the Bishopwearmouth West Sub-District. Only two of the children who died were over five years of age. There is no doubt that the disease is very greatly spread in the schools by means of unrecognised cases. The remarks which I have made on Measles and school-age apply also to Whooping Cough, and, as I have frequently said before, to most of the infective fevers.

Acting on a suggestion from the Local Government Board (memorandum dated Jan., 1908), all children under five years of age were excluded from the following schools during the epidemic:—

February 24, St. Andrew's, Pallion, James William Street, Diamond Hall, Cowan Terrace, Colliery, Barnes, King Street, Thomas Street.

February 28, Hendon Valley.

TYPHOID FEVER.

During 1908, 133 notifications of Typhoid and Continued Fever were received, and there were 16 deaths, giving a case-mortality of 12 per cent., as compared with 1907, when there were 105 cases and 9 deaths, giving a case-mortality of 8·5 per cent.

A notable feature of Typhoid Fever during the year was the occurrence of more than one case in the same house. The distribution was as follows:—

12 houses had 2 cases in each house.

2	„	3	„	„
2	„	4	„	„
2	„	5	„	„

Several of the houses were in the poorer streets of the town. The cases referred to occurred in Flag Lane, Hastings Street, Hedworth Street, Tel-el-Kebir Road, Wear Street, Aiskell Street, Back Farringdon Row, Back Harrison Street, Crescent Row, Granville Street, Wellington Lane, Back Williams Street, Cage Hill, Infirmary Row, Margaret Alice Street, Cumberland Terrace, Little Villiers Street, Castle Street, and Chepstow Street. In two of these houses the persons affected had eaten mussels, and there was presumptive evidence that this was the cause of the disease. In the remaining houses the presumable cause was direct infection from the first case in the same house. It is not at all uncommon to find gross carelessness in nursing, no doubt due to ignorance of the effect which will be produced, but which, nevertheless, becomes a very serious matter when several persons in the same house become ill with such a disease as Typhoid Fever. All the cases were removed to the Sanatorium, and all recovered, with the exception of one.

Another matter worthy of note in connection with Typhoid Fever during the year was the number of persons who had eaten mussels. In 11 cases this shell-fish had been ingested on a day sufficiently recent to point to this as the probable cause. The following case is an instance:—A.M.A., residing in the Borough, date of onset August 21st. Patient, with her brother and his wife, ate mussels in an hotel outside the Borough, on August 6th. The brother was admitted to a neighbouring Infectious Hospital suffering from Typhoid Fever on August 17th, his wife on August 23rd, and on August 29th the first-named patient was admitted to the Borough Sanatorium, suffering from the same disease.

Mussels which are gathered from beds in the neighbourhood of sewers are exceedingly dangerous if eaten raw or insufficiently boiled. The localities where mussels may be obtained in the vicinity of the river and on the foreshore are so numerous that it would not be practicable to indicate the danger which arises from eating them by putting up notice boards.

It occurred to me that if the children in the Council's schools were informed, they would pass on the information, in many cases, to their parents and others. I therefore sent out the following circular to every head teacher in the Council's schools:

Medical Officer of Health's Department.

Town Hall,

Sunderland,

August 13th, 1908.

Dear Sir (or Madam),

From time to time cases of Typhoid Fever arise in this Borough owing to persons having eaten mussels or other shell fish which have been gathered in the vicinity of sewer outfalls, or from rocks upon which sewage has been carried by the tide.

It is difficult to acquaint the general public of the fact that such shell fish are dangerous, and I have therefore obtained the permission of the Secretary of the Education Committee to send you this circular, with a request that you will kindly advise the scholars in your department as to the risks they run in eating shell fish gathered in the neighbourhoods which I have named.

If you would therefore do this, and instruct them to tell their parents, I think you would be helping in a very large measure to prevent such cases in future. You may safely say that all mussels gathered in Sunderland are dangerous to eat.

Yours faithfully,

HENRY RENNEY, M.D., B.Hy., D.P.H.,

Medical Officer of Health.

DIARRHŒA.

Deaths from Diarrhœa were slightly in excess of the number recorded in the previous year, there being 93 in 1908, as compared with 65 in 1907. On referring to the Meteorological Chart, it will be seen that the Diarrhœa curve shows two maxima (which is unusual)—one for the week ending August 28th, and a second one for the week ending October 16th. The latter curve was due to the acceleration of hot weather which appeared at the

end of September, and continued during the first week of October. In Table G, page 12 is a statement of the number of deaths from Diarrhoea for the last 10 years, from which it will be noticed that 1908 compares very favourably with most of the antecedent years in this respect.

NOTIFICATION OF TUBERCULOSIS.

In a circular letter, dated December, 1908, the Local Government Board intimated that they have issued an order to provide for the notification to the Medical Officers of Health of Sanitary Authorities of cases of pulmonary tuberculosis occurring amongst the inmates of Poor Law Institutions, or amongst persons under the care of District Medical Officers, and for the taking of certain measures in such cases.

The Board accordingly issued a set of Regulations dealing with Tuberculosis occurring in the above-named persons, such Regulations coming into force on January 1st, 1909.

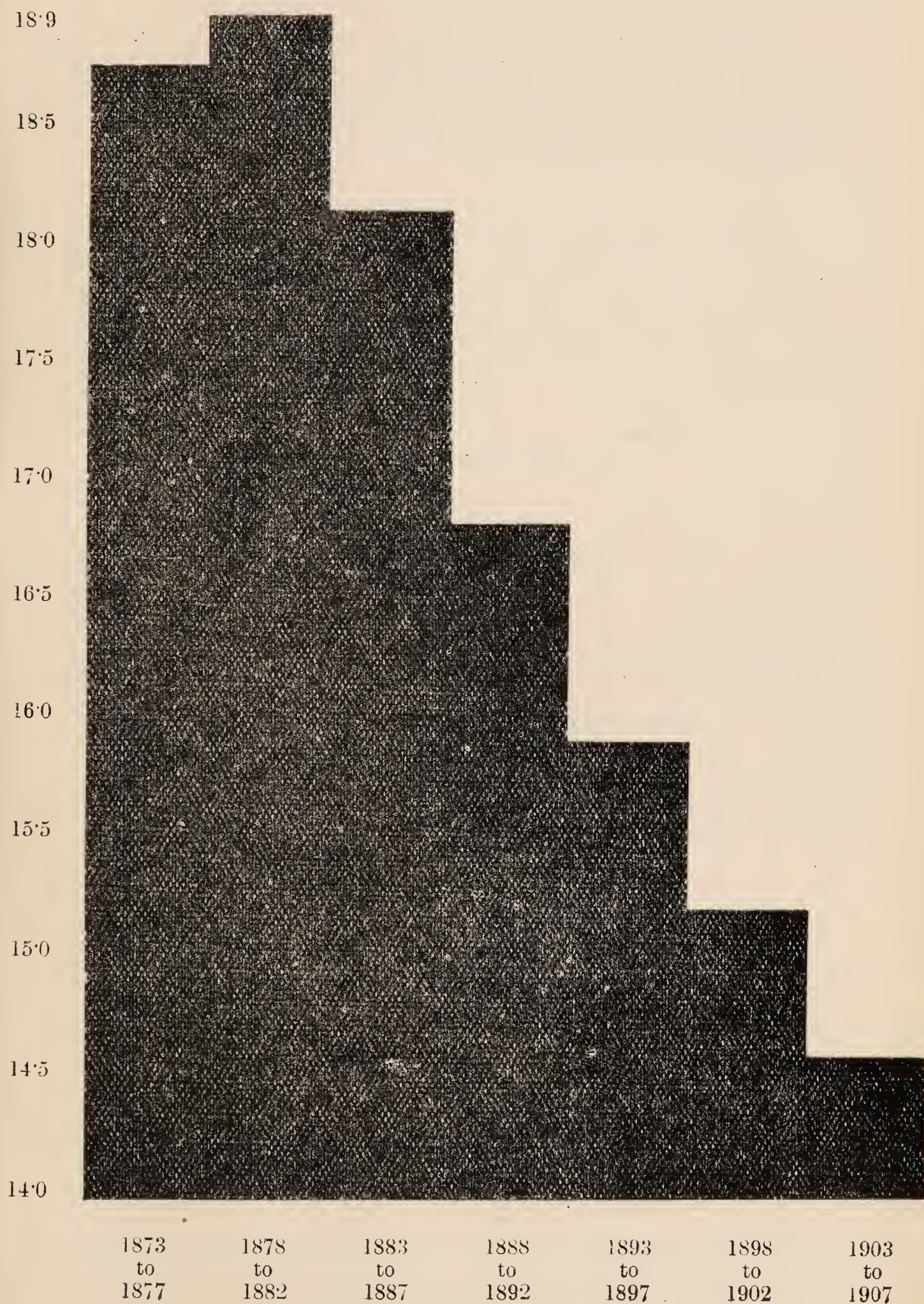
The Regulations provide for the notification to the Medical Officer of Health of Tuberculosis in the case of any poor person who is an inmate of a Poor Law Institution, of any such person under the care of a District Medical Officer, also for giving notice to the Medical Officer of Health of the change of address of such poor persons.

I think this is a step in the right direction, and already cases have been brought to my notice which but for these Regulations and consequent notification I should not have heard of. I have thus been enabled to have the cases visited by the Health Visitors, who have given instruction for the prevention of the spread of the disease; and whenever the opportunity has arisen the rooms occupied by such consumptives have been disinfected.

The following is an example of the necessity for such Regulations:—

On April 5th, 1909, a man died of Consumption, in a poor tenement at the West End of the town. He had been in and out of the Union Hospital at various times. His wife died one

Consumption Death-rate in quinquennial periods—
1873 to 1907—per 10,000.



week after of Consumption, and then it was found that two children were suffering from the same disease, and they were sent into the Union Hospital.

But for the compulsory notification of Tuberculosis I should not have been aware of the above cases. After the children were removed the rooms occupied by the whole family were thoroughly disinfected.

The Regulations will also be useful in helping me to keep in touch with consumptives, who often move from one house to another during their illness, and will enable me to have the tenement disinfected should the new tenant give permission for this to be done.

TUBERCULAR DISEASES.

A comparative view of the principal causes of death is shown by the diagram (drawn to scale) on page 6. Here it will be seen that "Tubercular Diseases" stands second, 291 deaths having been due to Consumption or to some other form of Tubercular Disease. In other words, upwards of ten per cent. of the total deaths were due to Tuberculosis.

REPORT OF THE CORPORATION CASES SENT TO THE STANHOPE SANATORIUM.

Since June, 1901, 69 persons have been treated in the Stanhope Sanatorium as Corporation patients.

40 of these are dead.

14 are well.

5 are fairly well.

2 are ill.

8 cannot be traced.

Of those who died, the average duration of life after discharge was about 2 years.

Of the 21 who are still under observation—

- 2 have been out $7\frac{3}{4}$ years.
- 1 has been out $6\frac{1}{2}$ years.
- 1 has been out $6\frac{1}{4}$ years.
- 1 has been out $5\frac{1}{3}$ rd years.
- 1 has been out $4\frac{1}{4}$ years.
- 1 has been out $3\frac{3}{4}$ years.
- 1 has been out $3\frac{1}{4}$ years.
- 1 has been out 3 years.
- 2 have been out $2\frac{3}{4}$ years.
- 2 have been out $2\frac{1}{2}$ years.
- 1 has been out $2\frac{1}{3}$ rd years.
- 1 has been out 2 years.
- 1 has been out $1\frac{3}{4}$ years.
- 1 has been out $1\frac{1}{4}$ years.
- 1 has been out 1 year.
- 2 have been out 2 months.
- 1 has been out 1 month.

It must be remembered that open-air treatment in a Sanatorium, whilst it arrests the disease, in the majority of cases, does not prevent a recurrence; hence it is most desirable that the patients should be placed under favourable conditions after discharge, in order to prevent the lungs being again attacked by tubercle.

RESPIRATORY DISEASES.

These include Bronchitis, Pneumonia, Broncho-pneumonia, Pleuro-pneumonia, Pleurisy, Asthma, and diseases of the larynx and trachea. They numbered 631, as compared with 716 during the previous year, being a decrease of 85, due no doubt to the more favourable climatic conditions which prevailed during the 2nd, 3rd, and 4th quarters of 1908, when the average mean temperature of the air and the temperature of the earth, at depths of one foot and four feet respectively, were higher than during the corresponding quarters of 1907.

BOROUGH SANATORIUM REPORT.

The total number of persons admitted was 336, of whom 15 died, giving a Death-rate of 4·5 per cent., being the lowest Death-rate recorded since the opening of the Sanatorium.

Of the 336 admitted, 217 were cases of Scarlet Fever, of which 2 died, causing a Death-rate of 0·9 per cent.

117 cases of Enteric and Continued Fevers were admitted. On further observation 19 of these were found not to be suffering from these diseases.

The diagnoses were as follows:—

DISEASES.	Number of Cases.	RESULT.			
		Cured.	Died.	Under treat- ment at end of 1908.	Removed to
Pleurisy	1	...	...	...	Infirmary
Meningitis	1	...	...	1	...
Pneumonia	1	1	...	...	...
Febricula	6	6	...	...	...
Gastric Catarrh	4	4	...	...	...
Empyema	1	...	...	...	Infirmary
Broncho-pneumonia ...	2	2	...	...	...
Bronchitis	1	1	...	...	...
Malingering.....	1	1	...	...	...
Influenza	1	1	...	...	...
TOTALS	19	16	...	1	2

Deducting the above 19 cases, there were 98 cases of Enteric Fever, of which 13 died, representing a Death-rate of 13·2 per cent., or 0·6 lower than in 1907, and below the average for the last sixteen years.

PORT CASES.

(Included in the above total.)

3 cases notified as Typhoid were admitted from the Port; two proved to be Typhoid, and one a case of malingering. One case of Erysipelas was admitted from the Port.

SMALLPOX.

A patient who had been under treatment for Smallpox in Wales arrived in Sunderland with desquamation still proceeding. This was, fortunately, discovered by a local medical practitioner, who at once advised me by telephone, and the patient was removed to the Sanatorium until desquamation was completed and he was free from infection. The usual precautions as to vaccination and disinfection were followed.

Table I. shows the number of cases of Infectious Diseases notified during the years 1907 and 1908, together with the number admitted to the Sanatorium, and the percentage of the total cases notified so admitted.

TABLE I.

Showing the number of Cases Notified and the number Admitted to the Sanatorium during 1907-8.

DISEASE.	1907.			1908.		
	Cases Notified.	Admitted to Hospital.		Cases Notified.	Admitted to Hospital.	
		Number.	Percentage of Total Cases Notified.		Number.	Percentage of Total Cases Notified.
Smallpox	1	1	100	1	1	100
Enteric Fever	92	67	72·8	135	117	86·6
Typhus Fever .....	...	...	...	...	...	...
Continued Fever	6	6	100	1	...	..
Scarlet Fever	498	297	59·6	325	217	67·0
Diphtheria and Memb. Croup	206	...	...	189	...	...
Erysipelas .....	...	...	...	...	1	...
Measles	1	1	...	...	...	...
Suspected Epidemic - Cerebro-Spinal Meningitis	1	1	100	...	...	...
TOTALS	805	373	46·4	651	336	51·4

The following figures show the death-rate in the Sanatorium for the past ten years:—

1899—Patients admitted, 454, of whom 36 died, or 7·9 per cent.

1900—	„	„	436,	„	42	„	„	9·6	„
1901—	„	„	327,	„	35	„	„	10·7	„
1902—	„	„	350,	„	30	„	„	8·6	„
1903—	„	„	313,	„	27	„	„	8·6	„
1904—	„	„	219,	„	22	„	„	10·0	„
1905—	„	„	182,	„	13	„	„	7·1	„
1906—	„	„	258,	„	22	„	„	8·5	„
1907—	„	„	373,	„	27	„	„	7·0	„
1908—	„	„	336,	„	15	„	„	4·5	„

TABLE J.

Showing the number of Infectious Diseases Admitted to the Sanatorium for the last 10 years.

	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908
Smallpox	2	2	...	10	32	34	2	...	1	1
Measles .....	...	...	...	...	...	...	...	...	1	...
Scarlet Fever.....	257	226	183	210	193	94	87	152	297	217
Diphtheria .....	...	...	...	...	...	...	...	...	...	...
Typhus Fever.....	...	...	...	...	...	...	...	...	...	...
Enteric and Continued Fever....	195	208	144	130	88	92	95	106	73	117
Suspected Epidemic— Cerebro-Spinal Meningitis ..	...	...	...	...	...	...	...	...	1	...
Erysipelas .....	...	...	...	...	...	...	...	...	...	1
Totals.....	454	436	327	350	313	219	184	258	373	336

My thanks are due to the Matron of the Sanatorium, Miss MacRae, who has now completed her sixth year of office. The responsible work of administration has been admirably carried out by her, as in former years, and to her and the Nurses under her charge very much of the success which has attended the institution is due.

It is with great regret that I have to report the death of Nurse Alder, who, for 4 years as Charge-Nurse and for 7 years as Deputy-Matron, most faithfully served the Corporation. She was the victim of Cancer, and died on July 21st, 1908, at her home, at Morpeth, deeply regretted by all who knew her.

Another sad death was that of Nurse Blackburn, a Probationer-Nurse, who died of Typhoid Fever and Pneumonia, at York. She left the Sanatorium for her holiday, on May 9th, apparently in good health, and died on May 20th. She was a Probationer of great promise, and was deeply regretted by the whole of the Staff.

BACTERIOLOGICAL EXAMINATIONS.

WATER.

112 samples have been examined. The results obtained are as follows:—

56·2	per cent.	contained no B. Coli in 100 c.c.
29·4	do.	gave a positive test in 100 c.c., but not in less.
10·7	do.	do. do. 10 do.
3·6	do.	do. do. 1 do.

The drinking water is obtained from deep wells sunk in the Magnesian Limestone.

Owing to the great depth of these wells the water should not contain any *Bacillus Coli* in 100 c.c., as the superimposed layer of earth should efficiently act as a filter, and prevent the organisms getting into the water supply at all. Fissures, however, abound in the magnesian limestone strata, and no doubt communicate with cracks in the soil above. Thus it seems probable that the water supply may be contaminated by soakage from undesirable material placed on the surface.

MILK FOR B. TUBERCULOSIS.

One hundred samples of Milk have been examined with a view to detecting Tubercle Bacillus. In 7 cases was this organism detected.

The Sunderland Corporation Act, 1907, provides power to deal with tuberculous milk sold within the Borough and whether the milk be obtained from cows either within or without the Borough. By Section 33, the Corporation may make an order requiring a dairyman not to supply within the Borough any milk, or any milk from any specified cow or cows in such dairy, until the order has been withdrawn by them, if the Medical Officer is of opinion that Tuberculosis is caused, or is likely to be caused to persons residing in the Borough from consumption of the milk supplied from such dairy.

The seven samples were from six dairies, situated outside the Borough, and in each case measures were taken to prevent infected milk being sent into the Borough. In one case it was necessary to make an order under the above Section of the Act. The order was contravened, and the offending dairyman was summoned before the Borough Justices, who imposed a fine of 20s. and costs. The dairyman then disposed of his tuberculous cows, and restocked his dairy with cows which had passed the Tuberculin test.

DIPHTHERIA.

Material from 420 cases has been examined. In 99 of these Diphtheria Bacilli were found.

PHTHISIS.

Material from 220 cases has been examined. Tubercle Bacilli were found in 71 cases.

ENTERIC FEVER.

Blood from 171 cases has been examined, with a positive result on 109 occasions.

BUTTER.

Four samples were examined for *B. Enteritidis Sporogenes*—the organism was not isolated.

EXAMINATION OF MILK FOR BACILLUS COLI.

Samples are taken from farmers' carts in process of delivering the milk to customers, and from milk-shops. The milk is received into previously sterilised bottles, and is sent in a special box containing ice to the Bacteriological Laboratory, at the Newcastle College of Medicine.

The following results were obtained by Professor Hutchens:

4 samples contained no *Bacillus Coli* in 1 c.c.*

20	„	<i>Bacillus Coli</i> in 1 c.c.
24	„	„ „ 1 c.c.
21	„	„ „ 01 c.c.
20	„	„ „ 001 c.c.
—		
89		

* One cubic centimetre (1 c.c.) is equal to about 17 drops.

Professor Hutchens has adopted a provisional standard whereby to measure the amount of impurity; samples containing *Bacillus Coli* in quantities varying from 01 c.c. to 1 c.c. he regards as satisfactory; those containing *Bacillus Coli* in quantities from 00001 c.c. to 001 c.c. he registers as unsatisfactory.

The presence of *Bacillus Coli* in milk indicates previous pollution with material of intestinal origin. *Bacillus Coli* is a normal inhabitant of the intestinal canal of bovines and other animals, including man. There is no doubt that it finds its way into the milk during the process of milking, owing to the entrance of small particles of dried manure which have become detached from the cow's flanks, udder, tail, etc. The dust of the byre contributes these organisms to a certain degree, and the conditions under which the milk is produced may be gauged to

some extent by the number of Coli organisms per c.c. found in the milk after it has left the cow. Looking at the above table, of the 89 samples, according to Professor Hutchens' standard, 69 were satisfactory and 20 unsatisfactory. This standard, however, is by no means a high one, for it will be observed that 21 samples which are placed in the "satisfactory" group contained *Bacillus Coli* in '01 c.c., that is to say, in one-hundredth of a cubic centimetre of milk there was *at least* one bacillus, and it is fair to assume that there were 100 in one cubic centimetre, or, roughly speaking, about 400 in an ordinary teaspoonful.

Taking the unsatisfactory class we find that 20 samples contained *Bacillus Coli* in '001 c.c. of milk, that is to say, one bacillus in every thousandth part of a c.c., or, again roughly speaking, 1,000 in one c.c., or 4,000 in an ordinary teaspoonful. And this is what we are feeding our children on!

Another kind of bacillus commonly found in milk and also in excremental matter is the *Bacillus Enteritidis Sporogenes*. This is thought to be one of the organisms productive of Summer Diarrhoea in infants. The milk supply could be rendered very much purer, so far as excremental matter is concerned, and it is to be hoped that the Pure Milk Bill which the President of the Local Government Board has promised during the present Session of Parliament will effect great changes in this direction. The whole question resolves itself into one of cleanliness. Milk is a most important food, of great nutritive value, and ought to be sold to the consumer in a perfectly clean condition. To obtain this result the byres, cows, attendants' hands and clothing, milk vessels, and everything which comes into contact with the milk must be kept clean. The milking ought to be performed in a perfectly clean place—certainly not in a cow-house or byre. The cows' flanks should be free from manurial deposit, the udders should be washed and well dried previously to milking, the attendant should wear a clean over-all, and his or her hands should be washed immediately before the act of milking each cow takes place. When these details are carried out we shall get pure milk unadulterated with faecal matter.

STRAINING AND COOLING MILK.

Milk is strained after leaving the cow in order to get rid of the grosser impurities, but no strainer is capable of separating the organisms mentioned above—they pass through the mesh-work by millions. If, however, the milk after straining were passed through a properly constructed cooler, and the temperature of the fluid thus reduced to 40° or 50° Fahrenheit, a great deal would be gained. The organisms very rapidly multiply by heat, but if cooling were adopted the low temperature produced would prevent the multiplication which otherwise takes place. I am sorry to say that very few dairymen use a cooling apparatus.

NEW MILK REGULATIONS.

The Regulations in force within the Borough were found to be inadequate, dating back to 1887. I have, therefore, compiled a new set, founded on the Model Regulations of the Local Government Board, under the Dairies, Cowsheds, and Milkshops Order, of 1885. These are now awaiting the approval of the Local Government Board.

INFANTILE MORTALITY.

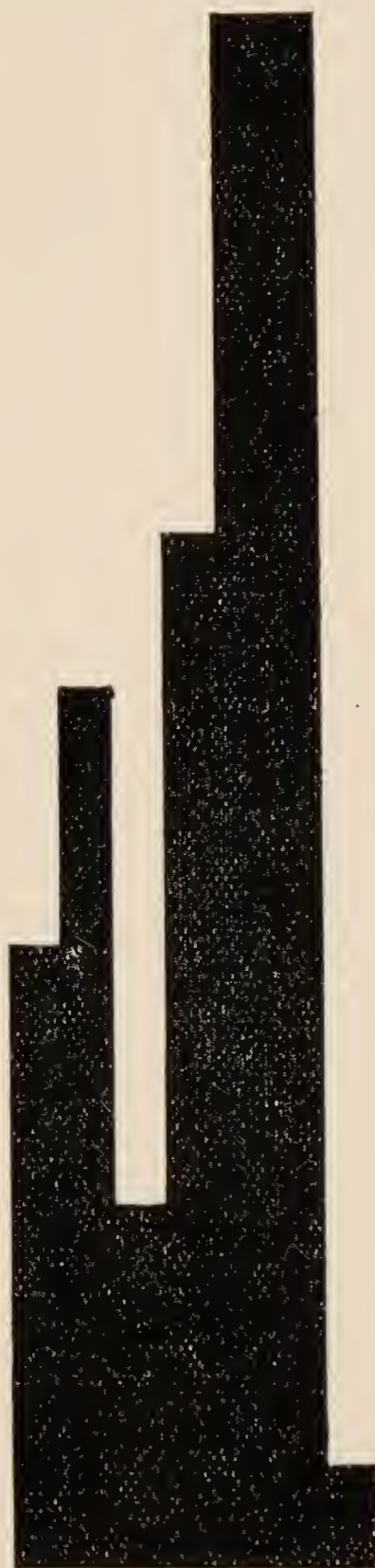
The following Table indicates the Infantile Mortality figure in Sunderland contrasted with that for England and Wales from 1881-1907:—

		Infantile Mortality in Sunderland.	Infantile Mortality in England and Wales.
1881	.....	146	130
1882	.....	184	141
1883	.....	137	137
1884	.....	167	147
1885	.....	156	138
1886	.....	152	149
1887	.....	152	145
1888	.....	135	136
1889	.....	182	144
1890	.....	175	151
1891	.....	178	149
1892	.....	159	148
1893	.....	189	159
1894	.....	168	137
1895	.....	191	161
1896	.....	161	148
1897	.....	168	156
1898	.....	202	160
1899	.....	175	163
1900	.....	169	154
1901	.....	179	151
1902	.....	153	133
1903	.....	159	132
1904	.....	165	145
1905	.....	143	126
1906	.....	140	132
1907	.....	130	115
1908	.....	144	121
1881 } 1885 }	Average	158	138
1886 } 1890 }	"	159	145
1891 } 1895 }	"	177	151
1896 } 1900 }	"	175	156
1901 } 1905 }	"	160	137

Infantile Death-rate in quinquennial periods—
1873 to 1907—per 1000 Births.

Deaths per 1000 Births.

175
174
173
172
171
170
169
168
167
166
165
164
163
162
161
160
159
158
157
156
155
154
153
152
151
150
149
148
147
146
145



1873—1877
1878—1882
1883—1887
1888—1892
1893—1897
1898—1902
1903—1907

On page 60 will be found a table showing the causes of death at different age-periods of children under one year. From this it will be observed that 748 children under this age died during the year, causing a mortality of 144 per 1,000 births, as compared with 130 per 1,000 in the previous year. An analysis of this table and a comparison with that for 1907 shows that the increased mortality was due mainly to Whooping Cough, Diarrhœal diseases, and Bronchitis. The remarks under Diarrhœa on a previous page should be read concurrently with this table.

The Birth-rate has fallen from 34·2 in 1907 to 32·9 in 1908.

242 infants died under the age of one month, equal to a rate of 46·7 per thousand births, as compared with 45 per thousand in 1907.

140 infants died under the age of one week, a mortality rate of 27 per 1,000 births, as compared with 29 per 1,000 during 1907.

A satisfactory point to note is that the rate of mortality of infants under the age of one month is slightly decreasing, and that of infants under the age of one week is steadily decreasing. I can only attribute this to the early notification of births and the consequent early attention which the infants receive from the Health Visitors.

The Death-rate from Diarrhœal Diseases showed an increase, being 22·3 per 1,000 births, as compared with 13·8 per 1,000 in 1907. This was due to the second high temperature curve before mentioned.

Premature births caused a Death-rate of 19·5 per 1,000 births, being 2·1 per 1,000 higher than in 1907.

There was again an increased Death-rate from Bronchitis and Pneumonia; 164 children under the age of one year died from these causes, equal to a mortality of 31·6 per 1,000. The greatest number of these deaths occurred during the first quarter of the year. The Death-rate in 1907 from these causes was 29·4 per 1,000.

The Death-rate from Atrophy, Debility, and Marasmus fell from 29 per 1,000 births in 1907 to 28·5 per 1,000 in 1908.

The following is a summary of the Work done by the Health Visitors during the year:—

Visits to Premises where Children suffered from	
Infectious Disease	491
Cases of Puerperal Fever visited	1
Number of Visits to Consumptive Cases	87
Visits to Infants immediately after Birth	4,589
Number of Re-visits to Infants	9,264
Visits to houses where Infants had died under	
one year	709
Visits to Midwives	146
Total	<hr/> 15,287

NOTIFICATION OF BIRTHS.

Sunderland Corporation Act, 1907.—5,109 births notified; 5,180 registered, or 98·6 per cent.

East 1,975, or 97·5 per cent.

West 1,933, or, 98·0 per cent.

North 1,201, or 98·2 per cent.

Six persons were summoned for non-notification; cautioned by magistrates.

REPORT ON MIDWIVES.

At the beginning of the year there were 30 Midwives on the Register, four have been added since, bringing the number up to 34. Three of these have had Hospital training, and are certified by examination.

The majority of the Midwives are not educated, but more care is taken than formerly in recording information required in the Register of Cases. In the case of those quite illiterate this is done by a member of the family.

Several are in poor circumstances, and doing but little midwifery.

The Health Visitors, who call frequently to inspect their Registers, bags, and instruments, find that greater care is taken in keeping them up to the required standard.

As far as can be ascertained, their mode of practice is fairly satisfactory.

Dresses and bodices of washable material are worn by the women; most of them are clean and tidy in person and surroundings.

One Midwife was reported to the Central Midwives' Board for taking a case unsuitable for a midwife, without sending for medical assistance. She was cautioned by the Board, and her subsequent practice has been found to be satisfactory.

CLEANSING DEPARTMENT.

The cleansing of the streets has been effected by the Staff of this Department in an efficient manner, and I desire here to express my appreciation of the way in which the work has been organised and satisfactorily carried out by the Superintendent, Mr. Summers.

At the end of the year there were in the Borough about 16,500 houses supplied by water-closets, and 7,400 by privies and ashpits.

There is an increase in the number of inhabited houses, namely 205.

The number of applications to have ashpits cleansed was 7, as compared with 10 for the previous year.

Return showing the number of Ashpits Cleansed also Inhabited Houses, etc., for Ten Years (1899-1908).

TABLE K.

Year.	No. of Inhabited Houses.	No. of Ash-pits Cleansed.	No. of Cart Loads of Refuse Removed from Ash-pits and Bins.	Average No. of Horses Employed Daily House Scavenging.	Applications received at Office to empty Ash-pits.
1899	20,639	229,343	74,898	40½	1,046
1900	21,078	238,860	78,350	44½	1,130
1901	21,473	241,577	72,886	44½	939
1902	22,110	243,565	72,584	43½	426
1903	22,405	245,671	70,487	43½	154
1904	22,798	253,459	68,036	42½	123
1905	23,105	290,469	68,692	42½	50
1906	23,455	296,672	67,234	43	13
1907	23,694	252,490	66,915	41½	10
1908	23,899	240,528	66,305	42	7

14,393 loads of street sweepings and 5,861 loads of snow were removed during the year.

The number of loads of water distributed on paved streets was 8,108, in addition to watering by electric tank.

During the twelve months 46,159 loads of refuse were sent to sea by hoppers. The carcasses of 451 dogs were collected from the Police Station and disposed of.

In addition to the loads of refuse referred to in the Table, 70,921 sacks of paper and 1,367 mattresses were collected and burnt or otherwise disposed of.

During the year 410 ashpits were specially cleansed prior to their abolition.

64,763 catchpits, containing 3,542 loads, were emptied. The daily average number of horses employed on this work was 5.

The daily average number of horses employed in cleansing and watering paved streets (including snow removal) was $17\frac{1}{2}$.

NEW HOUSES.

The following is the Report of the work performed by the Inspector of Drains and Sanitary Fittings in New Houses during the year:—

Number of visits made	3,868
Number of Tests applied to Drains and Sanitary Fittings—	
Water Tests	1,681
Smoke Tests	111
	<hr/>
Total.....	1,742
Number of Certificates sent to the Borough Engineer	205
Number of cases where it was found necessary to order concrete found- ations for drains	657
Approximate length of drains laid...	15,146 feet.

Several large buildings which have been in course of erection during the year have taken up a considerable amount of the Inspector's time, the details of the drainage being such as to require extra attention.

I have only to add that the Inspector of Drains (Inspector F. Rain) has done his work as conscientiously and efficiently as in former years, and that the drainage of new houses in the Borough is from a sanitary point of view second to none.

HARRISON BUILDINGS.

The Fifth Annual Report of the Harrison Buildings, made by the Superintendent, Mr. Joseph D. Ward.

On the 31st December, 1908, there were 39 houses occupied, viz., 18 consisting of three rooms, and 21 of two rooms each. 45 houses were unoccupied, viz., 18 of three rooms, and 27 two viz., 18 of three rooms, and 27 of two rooms each. Thus out of a total of 84 houses 45 are unoccupied, due mainly to the depression in trade through which we have been and are at present passing.

The rent collected during the year amounts to £726 17s. 5d., being a decrease, as compared with the previous year, of £140 18s. 10d.

The total amount of rent collected since the houses were opened is £3,751 0s. 5d.

The arrears of rent amount to £33 9s. 1d.

The following Table shows the amount of rent collected for each year, and the arrears of rent:—

Year.	Rent Collected.	Arrears.
	£ s. d.	£ s. d.
*1903	65 0 11	...
1904	492 6 7	0 17 6
1905	709 4 3	3 9 3
1906	889 15 0	1 13 0
1907	867 16 3	8 14 8
1908	726 17 5	33 9 1
Totals...	3751 0 5	48 3 6

* The buildings were opened in September, 1903.

The amount lost owing to houses being unoccupied during the year is £316 16s. 1d.

Of the 39 tenants at present occupying the houses:—

7 have been in over 5 years.

5 " " 4 "

10 " " 3 "

9 " " 2 "

3 " " 1 year.

5 " under 1 year.

There were 14 births during the year, and 2 deaths. The deaths were those of children, and were due to convulsions and meningitis respectively.

There were no cases of infectious disease.

POPULATION.

The population of the houses numbers 190 persons, an average of 2 persons to each occupied house.

The following Table shows the Population, Births, Deaths, and Infectious Diseases since the Buildings were opened:—

Year.	Population.	Births.	Deaths.	Infectious Diseases.
1904	234	10	4	Nil.
1905	305	15	4	Nil.
1906	335	17	7	12
1907	286	20	4	4
1908	190	14	2	Nil.
Totals...	1350	76	21	16

The Medical Officer wishes to add that the Superintendent of the Harrison Buildings has performed his duties conscientiously and efficiently, as in former years.

SUMMARY OF METEOROLOGICAL OBSERVATIONS for the year 1908, taken at 9 a.m. daily
at the Health Office and the Mowbray Park.

Month.	Barometer (corrected to sea level and 32° F.)	Mean Temperature.	Mean of Maximum Temperature.	Mean of Minimum Temperature.	Mean Temperature 1 ft. Earth Thermometer.	Mean Temperature 4 ft. Earth Thermometer.	Mean Humidity.	Number of days on which rain fell (.01 inches or more).	Total Rainfall.
January	30·051	38·3	43·7	33·0	36·9	41·5	82	9	1·09
February March April May June July August September ... October November..... December ...	29·924 29·789 29·992 29·945 30·080 29·982 29·929 29·858 30·139 29·972 29·841	41·7 39·4 41·5 52·2 54·4 58·3 56·8 55·6 53·9 44·8 38·7	46·9 44·7 46·7 58·9 61·2 64·5 63·1 61·8 59·3 49·9 43·8	36·5 34·2 36·4 45·5 47·7 52·1 50·4 49·4 48·6 39·6 33·6	33·8 38·0 41·5 49·7 54·2 57·4 56·9 54·0 53·5 45·9 40·3	40·9 40·7 42·6 46·2 51·1 54·5 56·1 53·1 54·3 50·0 45·3	79 82 76 75 74 71 73 83 81 81 83	15 21 16 17 13 13 18 17 11 13 14	1·04 2·64 2·65 1·29 1·07 2·58 1·62 1·71 1·26 1·18 1·10
Totals .....	...	...	..	...	...	...	...	177	19·23
Averages...	29·959	47·9	53·7	42·2	47·2	48·0	78	...	...

Annual Report of the Medical Officer of Health for the Year 1908 for the County Borough of Sunderland on the administration of the Factory and Workshop Act, 1901, in connection with Factories, Workshops, Workplaces, and Homework.

1.—Inspection of Factories, Workshops, and Workplaces.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises. (1)	Number of		
	Inspections (2)	Written Notices. (3)	Prosecutions. (4)
Factories (Including Factory Laundries)	574	32	...
Workshops (Including Workshop Laundries)	2885	110	1
Workplaces (Other than Outworkers' premises included in Part 3 of this Report)	911	60	...
Total	4370	202	1

2—Defects found in Factories, Workshops, & Workplaces.

Particulars. (1)	Number of Defects.			Number of Prosecutions. (5)
	Found. (2)	Re-medied. (3)	Referred to H.M. Inspector. (4)	
<i>Nuisances under the Public Health Acts :—*</i>				
Want of cleanliness	133	133	...	...
Want of ventilation	1	1	...	...
Overcrowding	4	4	...	...
Want of drainage of floors .....	...	...	...	...
Other nuisances	73	73	...	...
† Sanitary { insufficient.....	6	6	...	1
Accommo- { unsuitable or defective	11	11	...	...
dation. { not separate for sexes	7	7	...	...
<i>Offences under the Factory and Workshop Act :—</i>				
Illegal occupation of underground bake-houses (s. 101) .....	...	...	...	...
Breach of special sanitary requirements for bakehouses (ss. 97 to 100).....	26	26	...	...
<i>Other offences :—</i> (Excluding offences relating to outwork which are included in Part 3 of this Report).	1	1	...	...
Total	262	262	...	1

* Including those specified in sections 2, 3, 7, and 8 of the Factory and Workshop Act as remediable under the Public Health Acts.

† Section 22 of the Public Health Acts Amendment Act, 1890, has been adopted by the District Council. Conveniences provided on the basis recommended in the Sanitary Accommodation Order of February 4th, 1903.

Outworkers' Lists, Section 107.

Nature of Work. *

(1)

Wearing Apparel :—
 (1) Making, etc
 (2) Cleaning and Washing
 Lace, lace curtains and nets
 Artificial Flowers
 Nets, other than Wire Nets
 Tents
 Sacks
 Furniture and Upholstery
 Fur pulling
 Feather Sorting
 Umbrellas, &c
 Carding, &c., of Buttons, &c.
 Paper Bags and Boxes.....
 Basket Making
 Brush Making.....
 Racquet and Tennis Balls...
 Stuffed Toys
 File Making
 Electro-Plate
 Cables and Chains
 Anchors and Grapnels ..
 Cart Gear.....
 Locks, Latches, and Keys...
 Pea Pickihg.....

Total.....

Lists received from Employers.

Twice in the
year.

Out-
workers†

Lists.
+ (2)

Con-
tract's (3)

Work-
men. (4)

Lists. (5)

Out-
workers†

Con-
tract's (6)

Work-
men. (7)

Numbers of Addresses of
Outworkers received
from other Councils. ++ (8)

Numbers of Addresses of
Outworkers forwarded
to other Councils. † (9)

Notices served on Occupiers
as to keeping or sending
lists. (10)

Failing to keep or
permit inspection
of lists. (11)

Failing to send lists.
Prosecutions. (12)

Number of Inspections
of
Outworkers' Premises. (13)

Instances. (14)

Notices served. (15)

Prosecutions. (16)

Outwork in
Unwhole-
some
Premises,
Section 108.

Instances. (17)

Orders made
(S. 110.) (18)

Prosecutions.
(Sections 109, 110. (19)

Outwork in
Infected Premises,
Sections 109, 110.

Home Work.—Continued.

* If an occupier gives out work of more than one of the classes specified in column 1, and subdivides his list in such a way as to show the number of workers in each class of work, the list should be included among those in column 2 (or 5 as the case may be) against the principal class *only*, but the outworkers should be assigned in column 3 and 4 (or 6 and 7) into their respective classes. A footnote should be added to show that this has been done.

† The figures required in columns 2, 3 and 4 are the *total* number of lists received from employers who sent them both in February and August as required by the Act, and of the entries of names of outworkers in those lists. They will, therefore, usually be double of the number of such employers and approximately double of the number of individual outworkers whose names are given, since in the February and August lists of the same employer the same (outworker's name will often be repeated.

‡ In view of the wide discrepancies found to exist between the totals in the two columns when the returns are added together, it is desired that care may be taken to give the exact figures. Only those addresses should be counted which have actually been received from or forwarded to other Councils during the year covered by the report.

4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.	No. (2)
Bakers and Confectioners	74
Blacksmiths	18
Boot and Shoe Makers	49
Cabinet Makers	31
Joiners.....	46
Milliners and Dressmakers.....	191
Plumbers	26
Tailors	65
Other Workshops.....	123
Total number of Workshops on Register.....	623

5.—OTHER MATTERS.

Class. (1)	No. (2)
Matters notified to H.M. Inspector of Factories—	46
Failure to affix Abstract of the Factory & Workshop Act (s. 133)	15
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshops Act (s. 5)	29
Reports (of action taken) sent to H.M. Inspector	25
Change of address by Occupiers of Workshops	5
Underground Bakehouses (s. 101) :—	
Certificates granted during the year .....	...
In use at the end of the year	5

SALE OF FOOD AND DRUGS ACTS.

Report of the Public Analyst appointed for the County Borough of Sunderland upon the articles analysed by him under the above Act.

I.—THE QUARTER ENDED 31st MARCH, 1908.

Article submitted for Analysis.	State whether the sample was submitted to the Analyst by an Officer acting under direction of a Local Authority, under Section 13 of Act, and if so, the name of such Authority.	Result of Analysis : Showing whether the sample was Genuine or Adulterated, and, if Adulterated, what were the nature and extent of the Adulteration.	Observations.
2 Brandy	By an Officer acting under direction of the Town Council.	Genuine	4 were of poor quality, containing not more than 3·2 per cent. of milk fat.
2 Whiskey		Do.	
1 do.		34·3 degrees under proof ...	
1 do.		30·2 do.	
13 Milk		Genuine ...	13 informal. Informal Sample.
1 do.		20·0 per cent. def. in milk fat	
1 do.		3·3 do.	
1 do.		28·3 do.	
1 do.		4·7 per cent. def. in non-fatty solids	
1 do.		10·0 per cent. def. in milk fat	
32 Butter		Genuine	
1 do.		Entirely Margarine	
1 do.		Do.	
1 do.		Do.	
1 do.		Do.	
1 do.		Do.	
1 do.		Do.	
4 Margarine		Genuine	2 informal. Informal.
1 do.		Fats contain 16·5 per cent. of butter fat	
1 do.		Fats contain 14·0 per cent. of butter fat	
1 do.		Fats contain 14·0 per cent. of butter fat	
6 Lard		Genuine	
1 Baking Powder.....		Do.	

All the samples of Milk were examined for Preservatives : none present.
20 of the above samples were taken informally.

Genuine Samples 60

Non-Genuine Samples 16

—
76
—

2.—QUARTER ENDED 30th JUNE, 1908.

Article submitted for Analysis.	State whether the sample was submitted to the Analyst by an Officer acting under direction of a Local Authority, under Section 13 of Act, and if so, the name of such Authority.	Result of Analysis: Showing whether the sample was Genuine or Adulterated, and, if Adulterated, what were the nature and extent of the Adulteration.	Observations.
17 Milks.....	By an Officer acting under direction of the Town Council.	Genuine.	All milk, butters, & creams examined for preservatives
1 Do.		5.0 per cent. deficient of fat	
1 Cream		Containing 0.20 per cent. of boric acid	Informal.
1 Do.		Containing 0.10 per cent. of boric acid	Do.
1 Do.		Containing 0.12 per cent. of boric acid	Do.
1 Do.		Containing 0.15 per cent. of boric acid	Do.
10 Butter		Genuine.	6 informal.
3 Pepper		Do.	1 do.
2 Ground Ginger		Do.	1 do.
3 Oatmeal		Do.	All informal.
2 Cheese.....		Do.	Both informal

Genuine Samples 37

Non-genuine Sample 1

Doubtful..... 4

42

3.—QUARTER ENDED 30th SEPTEMBER, 1908.

Article submitted for Analysis.	State whether the sample was submitted to the Analyst by an Officer acting under direction of a Local Authority, under Section 13 of Act, and if so, the name of such Authority.	Result of Analysis : Showing whether the sample was Genuine or Adulterated, and, if Adulterated, what were the nature and extent of the Adulteration.	Observations.
25 Milk	By an Officer acting under direction of the Town Council	Genuine.	All samples of milk are examined for preservatives.
1 Do.		6·6 per cent. deficient in fat	
1 Do.		10·0 do. do.	
1 Skim Milk		Genuine	Informal. Contained 0·26, 0·14, and 0·20 per cent. boric acid.
3 Lobster Paste		Do.	
6 Jam		Do.	
			Informal. Two contained small amount of artificial colouring matter.

Genuine Samples 35

Non-genuine Samples 2

37

4.—QUARTER ENDED 31st DECEMBER, 1908

Article submitted for Analysis.	State whether the sample was submitted to the Analyst by an Officer acting under direction of a Local Authority under Section 13 of Act, and if so, the name of such Authority.	Result of Analysis : Showing whether the sample was Genuine or Adulterated, and, if Adulterated, what were the nature and extent of the Adulteration.	Observations.
24 Milks.....	By an Officer acting under the direction of the Town Council.	Genuine.	All samples of milk and butter were examined for preservatives.
Do.		6·6 per cent. deficient in fat.	
Do.		3·3 " "	
Do.		6·6 per cent. deficient in fat and 1·4 in non-fatty solids.	
Do.		6·6 per cent. deficient in fat	
Do.		10·0 " "	
Do.		6·6 " "	
Do.		5·4 p. cent. in non-fatty solids	
Do.		2·6 " "	
Do.		10·0 per cent. deficient in fat	
Do.		6·6 " "	
Do.		10·0 " "	
Do.		7·7 p. cent. in non-fatty solids	
1 Cheese.....		Genuine.....	Informal
14 Butter		Do.	Do.
Do.		Contnd. 0·12 p. ct. boric acid	Do.
2 Lards		Genuine.....	Do.
Devilled Ham		Do.	Free from preservatives.— Informal.
3 Sweets		Do.	Informal
1 Self-raising Flour		Do.	Do.
1 Jam		Do.	Informal— Colour artificially heightened.
1 Cocoa		Do.	Informal
2 Cocoa Mixture		Do.	Informal. Contained Sugar and Arrow-root.
5 Coffee Mixture		Do.	Informal
4 Glycerine.....		Do.	Do.
4 Castor Oil		Do.	Do.
5 Cmpd. Liquorice Powder		Do.	Do.

Genuine Samples	67
Non-Genuine Samp'les	12
Doubtful	2
	<hr/> 81

Summary for the Year—

Genuine Samples Examined...	199
Non-Genuine Samples	31
Doubtful	6
	<hr/> 236

JOHN PATTINSON,
Public Analyst.

CONCLUSION.

I desire herewith to tender my thanks to the Chairman, Vice-Chairman, and members of the Health Committee for the courtesy I have at all times received from them, and for their continued co-operation with me in the administration of my work.

I wish also to acknowledge the assistance I have received from my colleagues in the other Departments of the Corporation, and also from the Chief Constable, the Clerks to the Justices of the Peace (County and Borough), the Clerk to the Guardians, the Head Teachers in the Elementary Schools, and the Vaccination Officers.

I take this opportunity to thank many Medical Officers of Health for valuable information received, and to assure them of my willingness to reciprocate.

I am sensible of the loyal co-operation of the whole of the Staff of my Department, at all times most cheerfully given, and without which the work of that Department could not have been so smoothly and efficiently performed.

HENRY RENNEY, M.D., B.S., D.Hy., D.P.H.

May, 1909.

APPENDIX.

VITAL AND SANITARY STATISTICS

TOGETHER WITH

NEW TABLES REQUIRED BY THE LOCAL
GOVERNMENT BOARD.

1908.

INCLUDING THE

ABSTRACT FOR TEN YEARS, 1899-1908.

LOCAL GOVERNMENT BOARD TABLE I.

Showing the Population, Births, and Deaths for the whole of the Borough
for the year 1908 and 10 years preceding.

Year.	Population estimated to Middle of each Year.	Births.		Deaths under 1 year of age		Deaths at all ages. Total.		Deaths in Public Institutions.	Deaths of Non- residents registered in District.	Deaths of Residents registered beyond District.	Deaths at all ages. Nett.	
		Number.	Rate.*	Number.	Rate per 1000 Births registered.	Number.	Rate.*				Number.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1898	141970	5077	35·7	1027	202	3236	22·8	377	...	...	...	...
1899	143450	5184	36·1	913	176	3113	21·7	462	...	...	...	...
1900	144945	5256	36·3	889	167	3147	21·7	405	...	...	...	...
1901	146456	5279	36·0	946	179	3123	21·3	401	...	...	...	...
1902	147983	5391	35·7	825	171	2914	19·3	456	...	...	...	...
1903	149526	5195	34·5	817	157	2970	19·8	481	...	..	...	...
1904	151093	5194	34·4	857	165	2935	19·4	464	...	...	...	...
1905	152659	5223	34·2	748	143	2853	18·6	485	...	...	...	...
1906	154251	5375	34·8	752	140	2858	18·5	474	..	...	...	...
1907	155859	5330	34·2	696	130	2973	19·1	500	...	...	..	...
Averages for years 1898-07	148819	5250	35·2	847	163	3012	20·2	450	...	...	...	...
1908	157495	5180	32·9	748	144	2754	17·5	511	...	...	...	...

* Rates calculated per 1,000 of estimated population.

NOTE.—The Deaths to be included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district or division. The Deaths to be included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term “Non-residents” is meant persons brought into the district on account of illness, and dying there; and by the term “Residents” is meant persons who have been taken out of the district on account of illness, and have died elsewhere.

Area of District in acres, 3,357.

Total Population at all ages	146,077	} At Census of 1901.
Number of Inhabited Houses	21,473	
Average Number of Persons per House ...	6·8	

LOCAL GOVERNMENT BOARD TABLE II.

Showing the Population, Births, and Deaths for the Three Districts of the Borough for the year 1908.

Year.	SUNDERLAND EAST.				SUNDERLAND WEST.				SUNDERLAND NORTH.			
	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population estimated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
1898 } 1899 } 1900 } 1901 } 1902 } 1903 } 1904 } 1905 } 1906 } 1907 }	The Registration	1884	1269	351	he Borough were re-arranged in 1902, hence figures for 1903, 1904, 1905, 1906, and 1908.	2125	1090	280	I can only give the	1186	611	186
	55419	1960	1185	340		2012	1093	327		1222	657	190
	55884	2005	1212	320		2052	996	235		1166	645	193
	56463	2027	1187	309		2090	1029	261		1258	642	182
	57052	1960	1238	310		2100	1071	236		1270	664	150
	54647											
Averages of Years 1898 to 1907	...	...	...	...	...	...	...	...	...	...	...	...
1908	58252	1975	1170	321	64724	1973	1004	258	34519	1232	580	169

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.						TOTAL CASES NOTIFIED IN EACH LOCALITY.				**NO. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.				Total Cases removed to Hospital.
	At all Ages.	At Ages—Years.					Sunderland East.	Sunderland West.	Sunderland North.	Sunderland East.	Sunderland West.	Sunderland North.			
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.							65 and upwards.		
Small-pox	1	...	...	...	...	1	...	...	1	...	...	...	...	1
Cholera .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous croup)	189	1	61	101	15	11	59	89	41	...	...	...	...	...
Erysipelas	95	...	...	...	...	...	31	48	16	...	...	...	...	...
Scarlet fever	325	1	111	199	10	4	95	188	42	69	122	26	...	217	
Typhus fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric fever	132	...	13	49	29	41	50	62	20	42	57	14	...	113	
Relapsing fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued fever	1	...	...	...	1	...	...	1	...	...	1	...	...	1
Puerperal fever	1	...	...	...	1	...	1	...	...	...	...	...	...	...
Plague .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
*Consumption	25	...	...	2	9	13	15	10	...	...	...	...	...	...
(Voluntary Notification)															
Totals	744	...	...	...	...	...	236	389	119	111	181	40	...	332

NOTES.—The localities adopted for this table should be the same as those in Tables II. and IV.

State in space below the name of the isolation hospital, if any, to which residents in the district, suffering from infectious disease, are usually sent. Mark (H) the locality in which it is situated, or if not within the district, state where it is situated, and in what district. The name of the authority by whom the hospital is provided should also be given. Mark (W) the locality in which a workhouse is situated.

* This space may be used for record of other disease the notification (compulsory or voluntary) of which is in force in the district.

† These age columns for notifications should be filled up in all cases where the Medical Officer of Health, by inquiry or otherwise, has obtained the necessary information.

*** Column 8 should be filled up with the Totals of all cases removed to Hospital, whether the District is divided into separate localities or consists of only one undivided area.

Isolation Hospital.—Name and Situation. Borough Sanatorium for Infectious Diseases, Ford. Total available beds, 90. Number of Diseases that can be concurrently treated, 3.

LOCAL GOVERNMENT BOARD TABLE IV.

Showing Causes of and Ages at Death during Year 1908.

Causes of Death.	Deaths at the subjoined ages of "Residents" whether occurring in or beyond the District.							Deaths at all ages of "Resi- dents" belong- ing to localities, whether occur- ing in or beyond the District.			Deaths in Public Institu- tions.
	All Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	Sunderland East.	Sunderland West.	Sunderland North.	
Smallpox											
Measles	23	3	17	3				3	16	4	9
Scarlet Fever	5		3	2				2	2	1	2
Whooping Cough.....	120	63	55	2				55	47	18	3
Diphtheria, (including Membranous Croup)...	28		14	14				18	7	3	
Croup	1		1						1		
Fever { Typhus											
Enteric	16		1	2	7	6		5	7	4	14
Other continued...											
Epidemic Influenza	15				2	7	6	6	4	5	
Cholera											
Plague											
Diarrhoea (see notes at back)	93	68	23				2	38	31	24	5
Enteritis (see notes at back)	68	48	12	4		3	1	32	20	16	2
Puerperal Fever (do.)	1					1		1			
Erysipelas	1	1							1		
Other Septic Diseases.....											
Phthisis (Pulmonary Tuberculosis).....	192	3	7	13	46	120	3	85	57	50	53
Other Tubercular Diseases	99	20	40	12	9	18		25	41	33	14
Cancer, Malignant Disease (See notes at back)	125					81	44	36	52	37	30
Bronchitis	342	117	54	7		70	94	173	130	39	28
Pneumonia	274	47	73	13	16	91	34	127	94	53	52
Pleurisy	4					2	2	3	1		3
Other Diseases of Respira- tory Organs	10	1	1	1		4	3	6	2	2	2
Alcoholism—Cirrhosis of Liver	13					12	1	6	7		2
Venereal Diseases	7	7						5	1	1	
Premature Birth.....	101	101						37	42	22	
Diseases and Accidents of Parturition	13				8	5		7	4	2	1
Heart Diseases	209	1	1	1	6	132	68	73	93	43	41
Accidents	76	11	10	9	6	29	11	36	27	13	35
Suicides	9				1	6	2	4	3	2	
All other causes	909	257	72	20	20	240	300	387	314	208	215
All causes	2754	748	384	103	121	827	571	1170	1001	580	511

NOTES TO TABLES IV. AND V.

- (A) In Table IV., all deaths of "Residents" occurring in public institutions, whether within or without the district, are to be INCLUDED with the other deaths in the columns for the several age groups (columns 2-8). They are also, in columns 9-15, to be INCLUDED among the deaths in their respective "Localities" according to the previous addresses of the deceased as given by the Registrars. Deaths of "Non-residents" occurring in public institutions in the districts are in like manner to be EXCLUDED from columns 2-8 and 9-15 of Table IV.
- (B) See notes on Table I. as to the meaning of "Residents" and "Non-residents," and as to the "Public Institutions" to be taken into account for the purposes of these Tables. The "Localities" in Table IV. should be the same as those in Tables II. and III.
- (C) All deaths occurring in public institutions situated within the district, whether of "Residents" or of "Non-residents," are, in addition to being dealt with as in note (A), to be entered in the last column of Table IV. The total number in this column should equal the figures for the year in column 9, Table I.
- (D) The total deaths in the several "Localities" in columns 9-15 of Table IV. should equal those for the year in the same localities in Table II., sub-columns c. The total deaths at all ages in column 2 of Table IV. should equal the gross total of columns 9-15, and the figures for the year in column 12 of Table I.
- (E) Under the heading of "Diarrhœa" are to be included deaths registered as due to Epidemic diarrhœa, Epidemic enteritis, Infective enteritis, Zymotic enteritis, Summer diarrhœa, Dysentery and Dysenteric diarrhœa, Choleraic diarrhœa, Cholera and Cholera Nostras.
- Deaths from diarrhœa secondary to some well defined disease should be included under the latter.
- Deaths from Enteritis, Muco-Enteritis, Gastro-Enteritis, and Gastritis (see under the heading Diarrhœal Diseases in Table V.) in Tables IV. and V. should be placed immediately below, but separately from, those enumerated under the heading Diarrhœa as defined by enumeration above. This is particularly important for deaths under one year of age, as many of the deaths in infancy returned as due to Enteritis are really caused by Epidemic Diarrhœa. In the course of years, by the adoption of this recommendation, it will be practicable to ascertain the probable amount of transfer between these different headings.
- (F) Under the headings of "Cancer" and "Puerperal fever" should be included all registered deaths from causes comprised within these general terms. Thus: Under "Cancer" should be included deaths from Cancer, Carcinoma, Malignant disease, Scirrhus, Epithelioma, Sarcoma, Villous tumour, and Papilloma of bladder, Rodent ulcer. Under "Puerperal Fever" are to be included deaths from Pyæmia, Septicæmia, Sæpræmia, Pelvic peritonitis, Peri- and Endo-Metritis occurring in the Puerperium.
- (G) Under "Congenital Defects" in Table V. are to be included deaths from Atelectasis, Icterus neonatorum, Navel hæmorrhage, Malformations and Congenital hydrocephalus.
- (H) Under "Tuberculous Meningitis" are to be included deaths from Acute hydrocephalus.
- (I) Under "Other Tuberculous Diseases" are to be included deaths from Tuberculosis, Tuberculosis of bones, joints and other organs, Lupus and Scrofula.
- (J) All deaths certified by registered Medical Practitioners and all Inquest cases are to be classed as "Certified"; all other deaths are to be regarded as "Uncertified."

TABLE V.

WHOLE BOROUGH.

Infantile Mortality during the Year 1908.

Deaths from stated Causes in Weeks and Months under One Year of Age.

(See notes at back of Table IV.)

CAUSE OF DEATH.		Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-2 months.	2-3 months.	3-4 months.	4-5 months.	5-6 months.	6-7 months.	7-8 months.	8-9 months.	9-10 months.	10-11 months.	11-12 months.	Total Deaths under 1 year.
All Causes	Certified	137	37	29	33	236	87	53	45	46	37	41	40	38	37	34	41	735
	Uncertified	3	1	.....	2	6	.....	2	3	.....	.....	.....	.....	.....	.....	1	1	13
Common Infectious Diseases.																		
Smallpox																		
Chicken-pox																		
Measles															1		2	3
Scarlet Fever																		
Diphtheria, including Membranous Croup																		
Whooping Cough					1	1	4	4	3	4	2	8	9	8	5	4	11	63
Diarrhœal Diseases.																		
(See notes to Table IV.)																		
Diarrhœa, all forms			1	2	.....	3	7	4	7	4	7	7	3	9	6	4	7	68
Enteritis, Muco enteritis, Gastro enteritis							3	2	1	1	4	3	.....	.....	1	.....	1	16
Gastritis, Gastro-intestinal Catarrh		2	1	1	1	5	4	3	1	4	5	5	2	1	1	.....	1	32
Wasting Diseases.																		
Premature Birth		79	11	3	4	97	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	101
Congenital Defects (See notes to Table IV.)		10	2	2	1	15	4	1	.....	.....	.....	.....	.....	.....	1	.....	.....	21
Injury at Birth		13	.....	.....	.....	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13
Want of Breast-milk																		
Atrophy, Debility, Marasmus..		22	9	9	8	48	36	13	10	15	7	2	6	3	3	3	2	148
Tuberculous Diseases.																		
Tuberculous Meningitis										3	1	.....	1	.....	1	1	.....	7
(See notes to Table IV.)																		
Tuberculous Peritonitis : Tabes Mesenterica					1	1	1	.....	1	1	1	.....	.....	.....	1	1	.....	7
Other Tuberculous Diseases ..									1	.....	1	.....	2	.....	.....	3	2	9
(See notes to Table IV.)																		
Erysipelas										1	.....	.....	.....	.....	.....	.....	.....	1
Syphilis			1	.....		1	1	3	.....	1	.....	.....	1	.....	.....	.....	.....	7
Rickets											1	.....	1	.....	.....	1	.....	3
Meningitis (not Tuberculous) ..								2	.....	.....	2	3	.....	2	1	3	1	14
Convulsions		12	7	3	5	27	4	5	4	2	1	1	1	1	2	.....	.....	48
Bronchitis			4	6	12	22	15	12	16	7	.....	6	8	6	7	8	10	117
Laryngitis																		
Pneumonia				2	2	4	4	5	3	2	3	5	5	5	3	5	3	47
Suffocation, overlying		1	1	.....		2	1	.....	1	.....	.....	.....	.....	.....	.....	1	.....	5
Other Causes		1	1	1	.....	3	.....	.....		1	2	1	1	3	4	1	2	18
		140	38	29	35	242	87	55	48	46	37	41	40	38	37	35	42	748

Population (estimated to middle of 1908), 157,495.

Births in the) Legitimate.....4,987.
Year.) Illegitimate ... 193.

Deaths from all causes at all ages, 2,754.

LOCAL GOVERNMENT BOARD.

TABLE V. (A.)

SUNDERLAND EAST SUB-DISTRICT.

Infantile Mortality during the Year 1908.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.		Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-2 months.	2-3 months.	3-4 months.	4-5 months.	5-6 months.	6-7 months.	7-8 months.	8-9 months.	9-10 months.	10-11 months.	11-12 months.	Total Deaths under 1 year.
All Causes	Certified.....	53	20	13	13	99	34	25	25	21	11	20	19	17	10	14	20	315
	Uncertified		1	.....	1	2	.....	1	2	.....	.....	.....	.....	.....	.....	1	.....	6
Common Infectious Diseases.																		
Smallpox																		
Chicken-pox																		
Measles																		
Scarlet Fever																		
Diphtheria, including Membranous Croup.....																		
Whooping Cough							2	2	1			3	3	4	1	1	7	24
Diarrhœal Diseases.																		
Diarrhœa, all forms			1	1	.....	2	1	3	3	2	2	4	2	3	1	2	2	27
Enteritis, Muco enteritis, Gastro enteritis.....							3											3
Gastritis, Gastro-intestinal Catarrh.....		1	1	1	1	4	3	3	1	2	3	2	1	1				20
Wasting Diseases.																		
Premature Birth		31	4	.....	.....	35	1	1										37
Congenital Defects		4	1	2	.....	7	1											8
Injury at Birth		4				4												4
Want of Breast-milk.....																		
Atrophy, Debility, Marasmus..		7	5	3	5	20	13	5	7	10	3	2	1		2	1	2	66
Tuberculous Diseases.																		
Tuberculous Meningitis										1								1
Tuberculous Peritonitis: Tabes Mesenterica															1	1		2
Other Tuberculous Diseases ..													1			1	2	4
Erysipelas.....																		
Syphilis.....			1			1	1	1		1			1					5
Rickets																1		1
Meningitis (<i>not Tuberculous</i>) ..											1	3			1	2		7
Convulsions		6	4	2	1	13	1	2	1	1	1	1			1			21
Bronchitis			3	2	5	10	7	7	11	4		4	7	4	2	6	7	69
Laryngitis																		
Pneumonia				2	2	4		2	3				3	4				16
Suffocation, overlying			1			1	1											2
Other Causes											1	1		1	1			4
		53	21	13	14	101	34	26	27	21	11	20	19	17	10	15	20	321

Population (estimated to middle of 1908), 58,252.

Births in the \ Legitimate.....1,909.
Year \ Illegitimate ... 66.

Deaths from all causes at all ages, 1,170.

LOCAL GOVERNMENT BOARD.

TABLE V. (B.)

SUNDERLAND WEST SUB-DISTRICT.

Infantile Mortality during the Year 1908.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.		Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-2 months.	2-3 months.	3-4 months.	4-5 months.	5-6 months.	6-7 months.	7-8 months.	8-9 months.	9-10 months.	10-11 months.	11-12 months.	Total Deaths under 1 year.
All Causes	Certified	52	9	9	7	77	33	15	11	18	16	12	14	13	18	12	14	253
	Uncertified	1	.....	.....	1	2	.....	1	1	.....	.....	.....	.....	.....	.....	.....	1	5
Common Infectious Diseases.																		
Smallpox																		
Chicken-pox																		
Measles															1		2	3
Scarlet Fever																		
Diphtheria, including Mem- branous Croup																		
Whooping Cough							2	1	1	3	2	3	5	3	3	3	3	29
Diarrhœal Diseases.																		
Diarrhœa, all forms				1		1	4	1	3	1	2	1	1	4	1	1	4	24
Enteritis, Muco enteritis, Gastro enteritis									1	1	1							3
Gastritis, Gastro-intestinal Catarrh										1	2	3	1		1			8
Wasting Diseases.																		
Premature Birth		33	5	2	1	41	1											42
Congenital Defects		4	1			5	3								1			9
Injury at Birth		7				7												7
Want of Breast-milk																		
Atrophy, Debility, Marasmus..		6		2		8	13	3		3	3		3	3	1	1		38
Tuberculous Diseases.																		
Tuberculous Meningitis										2						1		3
Tuberculous Peritonitis : Tabes Mesenterica									1	1	1							3
Other Tuberculous Diseases ..									1		1		1					4
Erysipelas										1								1
Syphilis								1										1
Rickets											1							1
Meningitis (<i>not Tuberculous</i>) ..								1			1						1	3
Convulsions		2	2	1	1	6	2	3	2	1					1			15
Bronchitis			1	3	6	10	5	4	3	1		1		1	1	4	2	35
Laryngitis																		
Pneumonia							3	2		2	2	4	2		2	2	1	20
Suffocation, overlying		1				1												1
Other Causes										1				2	3	1	1	8
		53	9	9	8	79	33	16	12	18	16	12	14	13	18	12	15	258

Population (estimated to middle of 1908), 64,724

Births in the } Legitimate.....1,879.
 Year f Illegitimate ... 94.

Deaths from all causes at all ages, 1004.

LOCAL GOVERNMENT BOARD.

TABLE V. (C).

SUNDERLAND NORTH SUB-DISTRICT.

Infantile Mortality during the Year 1908.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.		Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-2 months.	2-3 months.	3-4 months.	4-5 months.	5-6 months.	6-7 months.	7-8 months.	8-9 months.	9-10 months.	10-11 months.	11-12 months.	Total Deaths under 1 year.
All Causes	Certified/.....	32	8	7	13	60	20	13	9	7	10	9	7	8	9	8	7	167
	Uncertified	2				2												2
Common Infectious Diseases.																		
Smallpox																		
Chicken-pox																		
Measles																		
Scarlet Fever																		
Diphtheria, including Mem- branous Croup ..																		
Whooping Cough ..					1	1		1	1	1		2	1	1	1		1	10
Diarrhœal Diseases.																		
Diarrhœa, all forms							2		1	1	3	2		2	4	1	1	17
Enteritis, Muco-enteritis, Gastro-enteritis								2			3	3			1		1	10
Gastritis, Gastro-intestinal Catarrh		1				1	1			1							1	4
Wasting Diseases.																		
Premature Birth		15	2	1	3	21	1											22
Congenital Defects		2			1	3		1										4
Injury at Birth		2				2												2
Want of Breast-milk																		
Atrophy, Debility, Marasmus..		9	4	4	3	20	10	5	3	2	1		2			1		44
Tuberculous Diseases.																		
Tuberculous Meningitis											1		1		1			3
Tuberculous Peritonitis: Tabes Mesenterica					1	1	1											2
Other Tuberculous Diseases ..																1		1
Erysipelas																		
Syphilis								1										1
Rickets													1					1
Meningitis (<i>not Tuberculous</i>) ..								1						2		1		4
Convulsions		4	1		3	8	1		1				1	1				12
Bronchitis				1	1	2	3	1	2	2		1		1	1			13
Laryngitis																		
Pneumonia							1	1			1	1		1	1	3	2	11
Suffocation, overlaying									1							1		2
Other Causes		1	1	1		3					1		1				1	6
		34	8	7	13	62	20	13	9	7	10	9	7	8	9	8	7	169

Population (estimated to middle of 1907), 34,519.

Births in the } Legitimate1,199.
 Year } Illegitimate ... 33.

Deaths from all causes at all ages, 580.

TABLE VI.

SHOWING DEATHS FROM ALL CAUSES DURING THE YEAR 1908.

CAUSES OF DEATH.	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 to 95	95 and upwards	Totals.
Smallpox { Vaccinated
Unvaccinated
No statement
Measles	3	17	8	..	..	..	..	..	..	..	..	..	23
Scarlet Fever	3	2	..	..	..	..	..	..	..	..	..	5
Typhus Fever
Epidemic Influenza	2	1	1	1	4	2	4	..	..	15
Whooping Cough	63	55	2	..	..	..	..	..	..	..	..	..	120
Diphtheria, Membranous Croup	14	14	..	..	..	..	..	..	..	..	..	28
Enteric Fever	1	2	7	1	4	1	..	..	..	..	..	16
Asiatic Cholera
Diarrhœa, Dysentery	53	18	..	..	..	..	..	..	..	2	..	..	73
Epidemic or Zymotic Enteritis	15	5	..	..	..	..	..	..	..	..	..	..	20
Other Allied Diseases
Hydrophobi
Glanders, Farcy
Tetanus
Anthrax, Splenic Fever
Cowpox, Accidents of Vaccination
Syphilis	7	..	..	..	..	..	..	..	..	..	..	..	7
Gonorrhœa
Phagedœna
Erysipelas	1	..	..	..	..	..	..	..	..	..	..	..	1
Puerperal Fever	1	..	..	..	..	..	..	1
Pyæmia, Septicæmia	2	..	..	..	..	..	..	1	..	..	..	3
Infective Endocarditis
Other Allied Diseases
Malarial Fever
Rheumatic Fever	1	..	..	1	2	..	..	..	..	..	4
Rheumatism of the Heart
Tuberculosis of Brain or Meninges, Acute Hydrocephalus	7	17	5	..	..	..	..	..	..	..	..	..	29
Tuberculosis of Larynx	1	1	3	..	..	..	..	..	..	5
Tuberculosis of Lungs	2	7	13	46	46	42	23	9	3	..	..	..	192
Tuberculosis of Intestines, Tabes Mesenterica	7	15	2	..	1	2	..	..	..	..	..	..	27
General Tuberculosis, Tubercular Disease of Undefined Position	6	8	3	5	3	..	..	2	..	..	..	..	27
Other forms of Tuberculosis, Scrofula	2	3	2	3	1	..	..	..	..	..	11
Other Infective Diseases
Thrush
Actinomycosis
Hydatid Diseases
Scurvy
Other Diseases due to altered Food
Starvation	1	1	..	..	..	..	2
Acute Alcoholism, Delirium Tremens	2	..	..	..	..	..	2
Chronic Alcoholism	1	..	..	..	..	..	..	..	1
Chronic Industrial Poisoning
Other Chronic Poisonings
Osteo-arthritis, Rheumatoid Arthritis	3	2	1	..	..	6
Gout	1	..	..	1
Cancer	5	13	36	27	35	9	..	..	125
Diabetes Mellitus	1	..	2	2	..	4	3	..	..	..	12
Purpura Hæmorrhagica	1	..	..	..	..	..	..	..	..	1
Hæmophilia
Anæmia, Leucocythæmia	1	..	1	1	2	..	3	..	..	..	..	8
Lymphadenoma, Hodgkin's Disease	1	..	..	1	..	..	..	..	..	..	2

TABLE VI.—CONTINUED.

CAUSES OF DEATH.	0 to 1	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 to 95	95 and upwards	Totals.
Diseases of Lymphatic System and Ductless Glands					2								2
Acute Nephritis.. .. .	1	4	1	....	1	6	2	4	3	1	....	....	23
Bright's Disease				1	5	3	10	11	9	5	....	....	44
Calculus													
Diseases of Bladder and Prostate							2	2	6	3	....	....	13
Other and Ill-defined Diseases of Urinary System								1	....	....	....	....	1
Diseases of Testis and Penis								2	....	....	....	....	2
Diseases of Ovaries								1	....	1	....	....	2
Diseases of Uterus and Appendages					2		1	....	....	....	....	....	3
Diseases of Vagina and External Genital Organs		1											1
Diseases of Breast													
Abortion, Miscarriage													
Puerperal Mania.. .. .													
Puerperal Convulsions				4	....	1	....	....	....	....	....	....	5
Placenta Prævia, Flooding				2	....		....	....	....	....	....	....	2
Puerperal Thrombosis													
Other and Ill-defined Accidents and Diseases of Pregnancy and Child Birth				2	2	2	....	....	....	....	....	....	6
Arthritis, Ostitis, Periostitis													
Other and Ill-defined Diseases of the Osseous System		1											1
Ulcer, Bed sore													
Eczema										1	....	....	1
Pemphigus.. .. .	1												1
Other and Ill-defined Diseases of Integumentary System	1	1						1	....	1	....	....	4
Accident or Negligence —													
In Mines and Quarries				1	1	1	1	....	....	....	....	....	4
In Vehicular Traffic.. .. .		1	1	....	1	1	1	....	....	....	....	....	5
On Railways			1	....	1	1	1	1	....	....	....	....	5
On Ships, Boats, and Docks (excluding Drowning)				2	....		1	....	1	....	....	....	4
In Building Operations													
By Machinery.. .. .					1	....	....	....	....	....	....	....	1
By Weapons and Implements													
Burns and Scalds	2	4	2	....	....	1	....	....	....	....	....	....	9
Poisons, Poisonous Vapours							1	....	1	....	....	....	2
Surgical Narcosis				1	....		1	....	....	....	....	....	2
Effects of Electric Shock													
Corrosion by Chemicals													
Drowning		2	2	....	1	....	2	1	....	....	....	....	8
Suffocation, Overlaid in Bed	5												5
Suffocation, otherwise	3	1							1	....	....	....	5
Falls, not specified	1	1	2	1	4	1	2	....	4	1	2	....	19
Weather Agencies													
Otherwise, and not stated.. .. .		1	1	1	1	1	....	1	....	1	....	....	7
Found Drowned					3	1	1	....	....	....	....	....	5
Homicide					1	....	....	....	....	....	....	....	1
Suicides—													
By Poison					1	....	....	2	....	....	....	....	3
By Asphyxia													
By Hanging and Strangulation				1	....		1	....	2	....	....	....	4
By Drowning													
By Shooting							1	....	....	....	....	....	1
By Cut or Stab								1	....	....	....	....	1
By Precipitation from Elevated Places													
By Crushing													
By other and Unspecified Methods													
Execution													
Sudden Death (Cause not Ascertained)													
Other Ill-defined and not Specified Causes							2	....	....	....	....	....	2
TOTALS	748	384	103	121	141	171	247	268	315	213	43	....	2754

TABLE VI_A.

SHOWING THE DEATHS FROM ALL CAUSES REGISTERED IN
EACH DISTRICT, 1908.

CAUSES OF DEATH.	Sunderland East.				Sunderland West.				Sunderland North.				Totals
	Under 1.	1 to 5.	Over 5.	Total.	Under 1.	1 to 5.	Over 5.	Total.	Under 1.	1 to 5.	Over 5.	Total.	
Smallpox { Vaccinated
Unvaccinated
No Statement
Measles	5	..	5	3	10	3	16	..	4	..	4	23
Scarlet Fever	1	1	2	..	1	1	2	..	1	..	1	5
Typhus Fever
Epidemic Influenza	6	6	..	..	4	4	..	..	5	5	15
Whooping Cough	24	31	..	55	29	16	2	47	10	8	..	18	120
Diphtheria, Membranous Croup	9	9	18	..	4	3	7	..	1	2	3	28
Enteric Fever	1	4	5	..	..	7	7	..	..	4	4	16
Asiatic Cholera
Diarrhoea, Dysentery	24	9	1	34	16	6	..	22	13	3	1	17	73
Epidemic or Zymotic Enteritis	3	1	..	4	8	1	..	9	4	8	..	12	20
Other Allied Diseases
Hydrophobia
Glanders, Farcy
Tetanus
Anthrax, Splenic Fever
Cowpox, Accidents of Vaccination
Syphilis	5	..	..	5	1	..	..	1	1	..	..	1	7
Gonorrhoea
Phagedæna
Erysipelas	1	..	..	..	..	..	..	..	1
Puerperal Fever	1	1	..	..	..	..	..	..	..	..	1
Pyæmia, Septicæmia	2	..	2	..	..	1	1	..	..	..	..	3
Infective Endocarditis
Other Allied diseases
Malarial Fever
Rheumatic Fever	3	3	..	..	1	1	..	..	..	..	4
Rheumatism of the Heart
Tuberculosis of Brain or Meninges, Acute Hydrocephalus	1	3	1	5	3	11	3	17	3	3	1	7	29
Tuberculosis of Larynx	1	1	..	..	3	3	..	..	1	1	5
Tuberculosis of Lungs	3	3	78	84	..	3	54	57	..	1	50	51	192
Tuberculosis of Intestines, Tuberc. Mesenterica	2	2	3	7	3	2	1	6	2	11	1	14	27
General Tuberculosis, Tubercular Disease of Undefined Position	1	4	3	8	4	2	9	8	1	2	8	11	27
Other Forms of Tuberculosis, Scrofula	4	4	..	..	7	..	..	..	..	..	11
Other Infective Diseases..
Thrush
Actinomycosis
Hydatid Diseases
Scurvy
Other Diseases due to Altered Food & Starvation	2	2	..	..	..	..	2
Acute Alcoholism, Delirium Tremens	1	1	..	..	1	1	..	..	..	..	2
Chronic Alcoholism	1	1	..	..	..	..	1
Chronic Industrial Poisoning
Other Chronic Poisonings
Osteo-arthritis, Rheumatoid Arthritis	2	2	..	..	4	4	..	..	..	..	6
Gout	1	1	..	..	..	..	..	..	..	..	1
Cancer	36	36	..	..	52	52	..	..	37	37	125
Diabetes Mellitus	3	3	..	..	6	6	..	..	3	3	12
Purpura Hæmorrhagica	1	1	..	..	..	..	..	..	..	..	1
Hæmophilia
Anæmia, Leucocythæmia	1	3	4	..	..	2	2	..	..	2	2	8
Lymphadenoma, Hodgkin's Disease	1	1	..	..	..	..	..	..	1	1	2

TABLE VIA.—CONTINUED.

CAUSES OF DEATH.	Sunderland East.				Sunderland West.				Sunderland North.				Totals.
	Under 1.	1 to 5.	Over 5.	Total.	Under 1.	1 to 5.	Over 5.	Total.	Under 1.	1 to 5.	Over 5.	Total.	
Exophthalmic Goitre .....	...	...	1	1	...	...	1	1	...	...	1	1	2
Myxœdema .....	...	...	...	...	...	...	...	...	...	...	...	...	1
Premature Birth	37	...	...	37	42	...	...	42	22	...	...	22	101
Injury at Birth	4	...	...	4	7	...	...	7	2	...	...	2	13
Debility at Birth	28	...	...	28	12	...	...	12	18	...	...	18	58
Atelectasis	2	...	...	2	2	...	...	2	2	...	...	2	6
Congenital Defects	6	1	...	7	7	...	...	7	2	...	...	2	16
Want of Breast Milk .. .. .	...	...	...	...	...	...	...	...	...	...	...	...	...
Atrophy, Debility, Marasmus	38	6	...	44	26	5	...	31	26	2	...	28	103
Dentition .. .. .	...	3	...	3	2	1	...	3	...	...	...	...	6
Rickets	1	...	...	1	1	4	...	5	1	2	...	3	9
Old Age, Senile Decay .. .. .	...	...	85	85	...	...	50	50	...	...	33	33	168
Convulsions	21	3	...	24	15	5	...	20	12	1	...	13	57
Meningitis	7	10	2	19	3	9	5	17	4	5	2	11	47
Encephalitis .. .. .	...	...	...	...	...	...	...	...	...	...	...	...	...
Apoplexy .. .. .	...	...	48	48	...	...	34	34	...	...	30	30	112
Softening of the Brain .. .. .	...	...	2	2	...	...	...	...	...	...	...	...	2
Hemiplegia, Brain Paralysis .. .. .	...	...	11	11	...	...	8	8	...	...	2	2	21
General Paralysis of the Insane .. .. .	...	...	5	5	...	...	6	6	...	...	1	1	12
Other Forms of Insanity .. .. .	...	...	5	5	...	...	5	5	...	...	...	...	10
Chorea .. .. .	...	...	...	...	...	1	1	2	...	...	...	...	2
Cerebral Tumour .. .. .	...	...	3	3	...	1	1	2	...	...	...	...	5
Epilepsy .. .. .	...	...	2	2	...	...	2	2	...	...	...	...	4
Laryngismus Stridulus .. .. .	...	...	...	...	1	...	...	1	1	...	...	1	2
Locomotor Ataxy .. .. .	...	...	1	1	...	...	3	3	...	...	...	...	4
Paraplegia, Diseases of Spinal Cord .. .. .	...	...	2	2	...	...	6	6	...	...	...	...	8
Other and Ill-defined Diseases of Brain or Nervous System .. .. .	...	...	3	3	...	...	5	5	...	...	1	1	9
Otitis, Otorrhœa .. .. .	...	...	1	1	...	1	1	2	...	...	...	...	3
Diseases of Nose, Epistaxis .. .. .	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of Eye .. .. .	...	1	...	1	...	...	...	...	...	...	...	...	1
Endocarditis, Valvular Diseases of Heart .. .. .	...	...	14	14	...	...	18	18	...	...	10	10	42
Pericarditis .. .. .	...	...	...	...	...	...	...	...	...	...	2	2	2
Hypertrophy of Heart .. .. .	...	...	...	...	...	...	...	...	...	...	...	...	...
Angina Pectoris .. .. .	...	...	1	1	...	...	1	1	...	...	...	...	2
Aneurism .. .. .	...	...	4	4	...	...	...	...	...	...	2	2	6
Senile Gangrene .. .. .	...	...	1	1	...	...	1	1	...	...	...	...	2
Embolism, Thrombosis .. .. .	...	...	2	2	...	...	3	3	...	...	...	...	5
Phlebitis .. .. .	...	...	...	...	...	...	...	...	...	...	...	...	...
Varicose Veins .. .. .	...	...	1	1	...	...	...	...	...	...	...	...	1
Other and Ill-defined Diseases of Heart and Circulatory System .. .. .	...	...	58	58	...	1	73	74	1	...	30	31	163
Laryngitis .. .. .	...	1	1	2	1	...	...	1	...	...	...	...	3
Croup .. .. .	...	...	...	...	...	1	...	1	...	...	...	...	1
Other Diseases of Larynx and Trachea .. .. .	...	...	...	1	...	...	...	...	...	...	...	...	...
Acute Bronchitis	69	35	48	152	35	15	54	104	13	4	13	30	286
Chronic Bronchitis .. .. .	...	...	21	21	...	...	26	26	...	...	9	9	56
Lobar Croupous Pneumonia .. .. .	...	1	7	8	...	...	8	8	1	5	1	7	23
Lobular Broncho-Pneumonia	11	19	9	39	16	19	3	38	9	9	3	21	98
Pneumonia, form not stated	5	5	70	80	4	7	37	48	1	8	16	25	153
Emphysema, Asthma .. .. .	...	...	3	3	...	...	1	1	...	...	1	1	5
Pleurisy .. .. .	...	...	3	3	...	...	1	1	...	...	...	...	4
Other and Ill-defined Diseases of the Respiratory System .. .. .	...	...	1	1	...	...	...	...	...	...	1	1	2
Diseases of Mouth and Annexa .. .. .	...	1	...	1	...	...	1	1	...	...	...	...	2
Diseases of Pharynx .. .. .	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of Œsophagus .. .. .	...	...	...	...	...	...	...	...	...	...	...	...	...
Ulcer of Stomach and Duodenum .. .. .	...	...	4	4	...	...	3	3	...	...	4	4	11
Other Diseases of Stomach	16	3	7	26	6	3	8	17	4	...	1	5	48
Enteritis	7	2	2	11	5	2	4	11	10	2	...	12	34
Appendicitis .. .. .	...	...	3	3	...	...	2	2	...	...	5	5	10
Obstruction of Intestine .. .. .	...	...	5	5	1	...	3	4	1	...	8	9	18
Other Diseases of Intestine .. .. .	...	...	3	3	...	...	2	2	...	...	...	...	5
Cirrhosis of Liver .. .. .	...	...	5	5	...	...	5	5	...	...	...	...	10
Other Diseases of Liver .. .. .	...	...	2	2	...	...	1	1	...	...	...	...	3
Peritonitis .. .. .	...	...	3	3	...	...	1	1	...	...	1	1	5
Other and Ill-defined Diseases of Digestive System .. .. .	...	...	...	...	1	...	...	1	...	...	...	...	1

TABLE VIA.—CONTINUED.

CAUSES OF DEATH.	Sunderland East.				Sunderland West.				Sunderland North				Total
	Under 1.	1 to 5.	Over 5.	Total.	Under 1.	1 to 5.	Over 5.	Total.	Under 1.	1 to 5.	Over 5.	Total.	
Diseases of Lymphatic System and Ductless Glands							1	1			1	1	2
Acute Nephritis		1	8	9	1	1	5	7		2	5	7	23
Bright's Disease			10	10			21	21			13	13	44
Calculus							8	8			2	2	13
Disease of Bladder and Prostate			3	3									
Other and Ill-defined Diseases of the Urinary System											1	1	1
Diseases of Testis and Penis			2	2									2
Diseases of Ovaries											2	2	2
Diseases of Uterus and Appendages			1	1			1	1			1	1	3
Diseases of Vagina and External Genital Organs										1		1	1
Diseases of Breast													
Abortion, Miscarriage													1
Puerperal Mania													
Puerperal Convulsions			3	3			2	2					5
Placenta Prævia, Flooding			1	1			1	1					2
Puerperal Thrombosis													
Other and Ill-defined Accidents and Diseases of Pregnancy & Child Birth			3	3			1	1			2	2	6
Arthritis, Ostitis, Periostitis													
Other and Ill-defined Diseases of the Osseous System		1		1									1
Ulcer, Bed sore													
Eczema			1	1									1
Pemphigus									1			1	1
Other and Ill-defined Diseases of Integumentary System			2	2		1		1	1			1	4
Accident or Negligence—													
In Mines and Quarries			2	2			1	1			1	1	4
In Vehicular Traffic							3	3		1	1	2	5
On Railways			4	4			1	1					5
On Ships, Boats, and Docks (excluding Drowning)			1	1			2	2			1	1	4
In Building Operations													
By Machinery			1	1									1
By Weapons and Implements													
Burns and Scalds	2	3	1	6			2	2		1		1	9
Poisons, Poisonous Vapours			1	1			1	1					2
Surgical Narcosis							2	2					2
Effects of Electric Shock													
Corrosion by Chemicals													
Drowning		1	4	5		1	1	2			1	1	8
Suffocation, Overlaid in Bed	2			2	1			1	2			2	5
Suffocation, otherwise	2	1	1	4					1			1	5
Falls, not Specified			6	6	1	1	8	10			3	3	19
Weather Agencies													
Otherwise, and not stated			4	4			2	2		1		1	7
Found Drowned			3	3			1	1			1	1	5
Homicide			1	1									1
Suicides—													
By Poison			2	2			1	1					3
By Asphyxia													
By Hanging and Strangulation			2	2			2	2					4
By Drowning													
By Shooting											1	1	1
By Cut or Stab											1	1	1
By Precipitation from Elevated Places													
By Other and Unspecified Methods													
Execution													
Sudden Death (Cause not Ascertained).													
Other Ill-defined and not specified causes			2	2									2
TOTALS	321	163	681	1170	258	135	611	1004	169	81	330	580	2754

TABLE VII.

STREETS in which ZYMOTIC DISEASES were known to have occurred in the
Year 1908.

SUNDERLAND EAST.

Street.	CASES NOTIFIED.						Deaths.	DEATHS FROM		
	Smallpox.	Enteric Fever.	Typhus Fever.	Continued Fever.	Scarlet Fever.	Diphtheria.		Measles.	Whooping Cough.	Diarrhoea.
Addison street.....	2	1	1	...	2	...
Addison street East	2	...	2	...	...	...
Adelaide place.....	3	...	3	...	...	...
Amberley street	1
Ann street	1	...	...	...	...
Arnott street	3	...	3	...	...	...
Athol park	1	...	...	...	...	...
Athol road	2	...	1	...	...	...
Avon street	2
Barracks, The	1	...	1	...	...	...
Bodlewell lane.....	1	...
Borough road	2	...
Bramwell street	1	...	...	...	1
Burleigh street	1	...	...	...	...	1	...	...	1
Cairo street	1	...	...	...	4	1	...	1	...
Canon Cockin street	1	1	1	...	...	1
Charles street	1	...	...	...	...
Chipchase street	1	...
Church street	1	...	...	...	...
Clementina street	1	1	...	...	...
Clyde street	1
Commercial road.....	...	1	...	...	...	...	1	...	...	...
Coronation street	1	...	1	...	1	...
Cousin street	1	...	1	...	1	1
Covent Garden street.....	...	1	...	...	1	...	2	...	...	...
Cumberland terrace	5	...	...	...	2	5	2	1	...
D'Arcy street	1	...	...	...	...
D'Arcy terrace.....	1	...	...	...	...
Dunn's passage	2
East Cross street.....	3	...
East Hendon road	1	...
East street	1	...	...	...	...	1	...	...	...
Egerton street.....	1	...	1	...	...	...
Emma street	1	...	...	2	...
Ferguson street	1	...	1	...	...	...
Flag lane.....	...	2	...	...	1	...	3	1	1	...
Fleet street	1	...
Ford street	1	...	...	...	1	1	...	...	...

TABLE VII.—CONTINUED.

Street.	CASES NOTIFIED.						Removed to Sanatorium.	Deaths.	DEATHS FROM		
	Smallpox.	Enteric Fever.	Typhus Fever.	Continued Fever.	Scarlet Fever.	Diphtheria.			Measles.	Whooping Cough.	Diarrhoea.
Fowler terrace.....	2	...	...	...	...	...
George street	1	...	...	...	...	1	...	...	3	1
Golden alley	1	...
Grey street	1	...	...
Guildford street	1	...	...	...	...	...
Harold street	1	...	...	...	...	...	...
Harrison buildings.....	1	...	1	...	...	...	...
Hartley street.....	...	1	...	...	...	...	1	...	...	...	1
Hastings street	4	...	...	...	...	2	...	...	...	...
Hedworth street.....	...	2	...	...	3	...	5	...	...	1	...
Hendon Burn avenue	1	...	...	...	...	...	...
Hendon road	1	...	...	...	...	1
Hendon street.....	1	2	1	...	...	...	1
Hendon Valley road	1	...	...	...	...	...	...	...	...	...
Henry street	3	...	3	...	...	...	...
Henry street East	1	...	1	...	1	...
Herrington street	1	3	...	...	...	...	...
High street East.....	1	3	...	...	...	...	1
Hudson road	1	...	...	...	...	...	...	...	...	...
Hunter terrace	6	1	4	...	...	...	...
Lambton street	1	...
Laura street	1	...	1	...	...	...	...
Lawrence street	2	...	...	...	...	2	...	...	1	...
Lilburne street	1	...
Little Villiers street	5	...	...	...	...	5	...	...	...	...
Low street	1	...	...	...	...	1	...	...	...	1
Lucknow street	1	...	...	...	...	1	...	...	1	...
Mainsforth terrace	2	...	1	...	...	...
Maling's rigg	1	1
Marshall street	1
Minorca	1
Moor street.....	1	1	1	...	...	...	...
Moor terrace	3	...	3	...	...	...	...
Mordey street.....	1	...	1	...	...	...
Murton street.....	1	...
Nelson street	1	...	...	...	...	...	...	...	...	...
Nesham place	1
Nesham square	1	...	1	...	...	...	1
New Grey street..	1	...	1	...	...	1	1
Nicholson street.....	1	...	1	...	...	...	...
Nile street	1	1
Norman street	1	...	...	...	...	1	1
Northcote avenue	1	...	...	1	...	...	1	...	...	...
North Moor street.....	1	...	...	...	...	...	...
Northumberland place	1	...
Old Hendon road	1	...	1	...	...	...	...
Old Mill road	1	...	...	...	...	...
Osman terrace	1	...	...	...	...	...
Outram street.....	1	...	1	...	1	...

TABLE VII.—CONTINUED.

[illegible]

TABLE VII.—CONTINUED.

SUNDERLAND WEST.

Street.	CASES NOTIFIED.						Removed to Sanatorium.	Deaths.	DEATHS FROM		
	Smallpox.	Enteric Fever.	Typhus Fever.	Continued Fever.	Scarlet Fever.	Diphtheria.			Measles.	Whooping Cough.	Diarrhoea.
Abingdon street	5	...	...	2	...	...	...
Ailesbury street	1
Aiskell street	2	...	...	...	...	2	...	...	1	...
Albert street	1	1	1	...	...	1	...
Albion place	1
Alderson street	1	...	1	...	...	1	...
Alfred street	1	1	...	...	...	...	...
Argyle square	1	...	...	...	...	...	...
Ashbrooke crescent	1	...	...	...	...	...	...
Avenue terrace	1	1	...	...	...	...	...
Avenue, The	1	...	...	...	...	...
Aylmer street	1	...	...	...	...	1	...	...	...	...
Ayre's Quay road	1	1	1	...	...	1	...
Azalea terrace North.....	1	...	...	...	...	...
Azalea terrace South.....	...	1	...	...	...	2	...	...	...	...	...
Beechville street.....	1	...	...	...	3	1	2	...	...	...	...
Bell street	1	...
Bennett street	2	...	2	...	...	...	...
Bexley street	1	...	...	...	...	...
Blackett terrace	1	...	...	...	...	...
Blandford street	1	...	...	...	...	...
Booth street	2	...	1	...	...	...	1
Brae, The.....	1	...	...	...	...	...
Brinkburn street	1	1	...	...	...	...	...
Brookland road	1	...	...	...	...	...	...
Brookside gardens	1	...	...	...	...	...	...	...	...	...
Brougham street.....	1	...	1	...	...	2	1
Brunton terrace	1	...	...	...	...	...
Carol street	1	...	...
Carter street	1	...	1	...	...	...	...
Castle street	3	...	...	...	...	3	...	...	...	...
Catherine street	1	...	...	...	...	1	...	...	...	...
Cecil street	1
Cedric crescent	1	...	1	...	...	...	...
Chepstow street	3	...	...	1	...	4	...	...	...	...
Chester oval	2	...	...	...	...	...
Chester road	4	...	4	...	...	...	1
Church street West	6	4	4	...	...	1	...
Clanny street	1	1
Claremont terrace	1	...	...	...	...	...
Clazey terrace.....	...	2	...	...	...	...	1	...	...	...	...
Cleveland road	1	...	...	4	4	5	...	...	...	...
Close street	1	...	...	...	...	...
Colchester terrace	1	...	...	...	3	...	...	...	...	...
Crescent row	4	...	...	1	...	5	...	...	1	...
Croft avenue	2	...	...	...	...	...	...

TABLE VII.—CONTINUED.

Street.	CASES NOTIFIED.						Removed to Sanatorium.	Deaths.	DEATHS FROM		
	Smallpox.	Enteric Fever.	Typhus Fever.	Continued Fever.	Scarlet Fever.	Diphtheria.			Measles.	Whooping Cough.	Diarrhoea.
Cross Green street.....	1	...
Crow street.....	1
Crow Tree terrace.....	...	1	...	...	2	1	3	...	...	...	...
Deptford road.....	1	...	1	...	1	...	1
Deptford terrace.....	5	1	2	...	...	...	...
Dryborough street.....	1	...	...	...	...	...
Duke street.....	...	1	...	...	...	...	1	...	...	...	2
Duncan street.....	2	...
Dunelm.....	1	...	...	...	...	...	...
Earl street	1	...	...	...	...	...	...
Eastfield street	2	...	2	...	...	...	...
Edwin street	1	...	1	...	...	...	...
Eldon street	2	...	1	...	...	...	...
Elgin street.....	...	2	...	...	...	...	2	...	...	...	...
Ennerdale	1	1	...	...	...	...	1
Esplanade, The	1	1	...	...	...	...	...
Ewesley road	1	1	...	...	...	...	...
Exeter street	1	...	...	1	1	2	...	...	...	...
Farrington row	2	...	...	...	4	1	1	...	...	...
Fern street	1	...	...	...	...	...
Fire station.....	2	...	...	...	...	...
Fordland place	2	...	1	...	...	...	...
Garden place	1	...	1	...	...	...	...
General Graham street	1	...	...	...	...	...	...
Gerald street	1	...	...	...	...	...
Gibson terrace.....	1	...	1	...	...	...	...
Gill Bridge avenue.....	2	...
Glebe street.....	1	...	...	...	1	...
Grafton street.....	2	...	2	...	...	...	...
Granville street	2	...	...	3	...	4	...	...	...	...
Green terrace	1	...
Grindon terrace	1	...	1	...	...	...	...
Hanover place.....	2	...	...	...	...	1
Harrison street	3	...	...	...	...	3	...	...	...	1
Hawarden crescent	2	...	...
Hazeldene terrace	1	...	1	...	...	...	...
Hedley street.....	2	1	...	...	...	...	...
Henderson road	1	...	1	...	...	...	...
Hetton street.....	...	1	...	...	...	...	1	...	...	...	...
High street West	1	...	...	...	...	1	...	...	3	...
Hillfield terrace	2	1	1	2	...	1	...
Holly terrace	1	...	1	...	...	...
Hope street.....	1	...	...	...	1	...
Houghton street.....	1	...	...	...	...	...	...
Howarth street	1	1	1	...	...	...	...
Hylton road.....	1	...	1	...	...	...	...
Hylton road West	1	...	...	...	...	...
Hylton street	2	...	1	...	...	...	...
Infirmary.....	...	2	...	...	4	...	4	...	...	...	...
Infirmary row.....	...	4	...	...	...	...	4	...	...	...	...

TABLE VII.—CONTINUED.

Street.	CASES NOTIFIED.						Removed to Sanatorium.	Deaths.	DEATHS FROM		
	Smallpox.	Enteric Fever.	Typhus Fever.	Continued Fever.	Scarlet Fever.	Diphtheria.			Measles.	Whooping Cough.	Diarrhœa.
Ingleby terrace	1	...	...	...	...	...
Ivanhoe crescent	3	...	2	...	...	...	...
John Candlish road	1	...	...	...	...	...
Johnson street	2	1	2	...	...	...	...
Johnson terrace	1	...
John street West	1	...	...	...	1	1	...	1	...	...
Kayll road	1	...	...	...	...	...
Kendal street	1	...	...	2	...	3	...	...	...	...
Kimberley street	1	...	1	...	...	...	...
King street	1	...
Kitchener street	3	1	2	...	...	...	...
Lily street	2	...	2	...	...	1	1
Lime street	1	...	1	...	...	...	...
Lisburn terrace	1	...	...
Lister street	2	...
Littlegate	1
Lunley street	2	...	...	...	...	...	...
Lyndhurst terrace	2	...	2	...	...	1	...
McNay's buildings.....	...	1	...	...	...	...	1	...	...	...	...
Maple street	1	...	...	...	...	...
Margaret Alice street	4	...	...	...	...	4	...	...	...	...
Marlborough street	1	...	1	...	...	...	...
Martin terrace	1	...	1	...	...	...	...
May street	1	...	...	...	...	1	...	...	...	...
Merle terrace	1	...	...	...	...	...
Milburn street	1	...	...	3	1	4	...	...	1	...
Mount pleasant	1	1	...	...	...	...	...
Mount road.....	1	...	...	...	...	1
Neville street	1	...	...	...	...	...	...
Nora street	4	...	2	...	...	1	...
North Milburn street	1	...	...	1	1	2	...	...	...	1
North Hedley street	2	2
North Ravensworth street	1	...	1	...	...	1	...
Northumberland street	1	...	...	1	...	2	...	...	...	...
Olive street	2	...	2	...	...	1	...
Ormonde street	4	2	2	...	...	...	...
Otto terrace.....	1	1	1	...	...	...	...
Palmer street	1	...	...	...	...	1
Peacock street	2	1	2	...	...	...	...
Peacock street West	1	...	...	...	...	...	...
Pensher street.....	1	...	...	...	...	...
Percival street	1	...	...	...	1	...	...
Picton street	1	...	...	...	...	...
Potts street.....	...	1	...	...	5	2	6	...	...	...	1
Priestley crescent	1	...	...	...	...	1	1	...	...	...
Queensberry street.....	1	...	...	...	...	...
Queen's crescent.....	5	...	2	...	...	...	...
Queen street West.....	...	1	...	...	...	...	1	1	...	3	1
Radnor street	1
Railway row	1	...
Rainton street.....	1	...	...	...	...	...	...

TABLE VII.—Continued.

Street.	CASES NOTIFIED.						Removed to Sanatorium.	Deaths.	DEATHS FROM		
	Smallpox.	Enteric Fever.	Typhus Fever.	Continued Fever.	Scarlet Fever.	Diphtheria.			Measles.	Whooping Cough.	Diarrhoea.
Retreat, The	1	..	...	..	..	..	..
Robert street	1	...	1	..	..	..
Rokeby street.....	1	1	...	..	..	..	..
Romford street	1	..	1	..	..	..	..
Ropery road.....	..	1	..	..	..	..	1	..	..	..	..
Rosanna street	1	..	..	..	..	1	..	..	..	..
Rosedale street	1	1	1	..	..	..	1
Royalty, The	1	..
Rutland street	1	..	..	4	..	5	1	..	..	1
Shakespeare terrace	1	..	1	..	..	..	..
Shepherd street	1	..	1	..	..	1	..
Sheridan street	1	..	1	..	..	..	..
Silksworth row	1	..	..	..	..	1	1	..	..	..
Simpson street	1	..	1	..	..	..	2
Sorley street	2	1	2	1	..	..	..
South Johnson street..	...	3	..	..	1	..	4	1	..	..	..
St. Cuthbert's terrace	4	..	4	..	..	1	..
St. George's square.....	1	..
St. Luke's road	1	..	..
St. Luke's terrace	3	..	3	..	..	..	..
St. Mark's road	2	..	..	..	..	..	..
St. Mark's terrace	1	..	..	..	..	..
Stanley street	1	1
Stanhope street	1	..	..	..	..	1	..	..	..	..
Stockton road	2	..	2	..	..	..	..
Stratfield street	1	..	..	1	..	2	..	..	..	..
Sydenham terrace	1	..	..	..	..	..	..
Tanfield street	1	..	..
Thelma street	2	1	..	1	1	..	..
Trimdon street	3	..	3	..	..	..	..
Trimdon street West.....	1	1	1	..	..	..	..
Tunstall terrace West	1	..	1	..	..	..	..
Vine place	2	..	..	..	..	..
Violet street	1	..	..	..	..	..	..
Water street	1	..	..	..	1	1	1	..	1	..
Waterworks road	1	..	..	..	..	1	..	..	1	..
Wellington lane	2	..	..	..	..	2	..	..	..	..
Wellington road	1	..	..	..	..	..
Well street	1	..	1	..	1	..	..
Westbourne road	1	..	..	1	..	..
Westbury street	2	..	2	..	..	..	..
Western hill	1
Westlands, The	1	..	..	..	..	..	..	..	..	..
Westwood street.....	1	..	..
West street	1	..	..	..	..	..
Wharncliffe street	1	..	..	3	1	2	..	..	..	..
Wilfred street.....	1	..	..
Williams street	2	..	..	2	..	4	..	2	1	1
Willmore street	1	..	..	..	..	..	..
Wilson street	2	..	2	..	..	..	..
Workhouse, The.....	...	1	..	..	..	..	1	1	..	..	..

[illegible]

TABLE VII.—CONTINUED.

Street.	CASES NOTIFIED.						Removed to Sanatorium.	Deaths.	DEATHS FROM		
	Smallpox.	Enteric Fever.	Typhus Fever.	Continued Fever.	Scarlet Fever.	Diphtheria.			Measles.	Whooping Cough.	Diarrhoea.
Nelson square	1	...
Normanby street	1	...
North Bridge street	1	1	1	...	...	...	...
North Eglinton street	1	...	1	...	...	...	...
Osborne street.....	2	...	2	...	...	1	...
Park Lea road.....	2	...	1	...	...	...
Pilgrim street	1	...
Rendlesham street.....	1	...
Ripon street	1	...	...	...	...	...	...
Roker avenue	1	2	1	...	...	2	...
Roker Park road.....	2	1	...	...	...	...	...
Rosebery street	1	...	...	...	...	...
Ross street	1	1	1	...	...	...	...
Rothsay street	1	...	...	...	...	2
Sandringham road	1
Sheepfolds	1	...	...	1	...	2	...	...	...	...
Side Cliff	1	...	...	...	...	...	...
Society lane.....	1
South Cliff	1	...	...	...	...	...	...
Stansfield street	1	...	1	...	...	...	...
Stobart street	3	...	3	...	...	...	...
Stranton terrace.....	1	...	...	...	...	...
Swan street	2	...	...	...	...	...
Victor street.....	...	1	...	...	1	1	1	...	...	...	...
Warwick street	1	1	...	...	...	...	...
Wayman street	2	...	...	...	3	2	1	...	...	...
Wear street.....	...	1	...	...	...	...	1	1	...	...	...
West Cliff road	1	...	...	...	...	...	...
Whitburn road	1	...	...	...	...	...	...
Whitburn street.....	...	1	...	...	...	...	1	...	...	...	1
Williamson street	1	...	1	...	...	...
Wreath Quay road.....	1	...	1	...	...	...	...

TABLE VIII.

Showing the STATE of VACCINATION in the entire Districts of the Sunderland Union for the Year ending December, 1907, and for the Ten preceding Years:

(AS FURNISHED BY THE VACCINATION OFFICERS.)

Year.	Births Registered.	Total Vaccinated.		Postponed by Medical Authority.	Died previous to Vaccination.	Removal to places unknown or other Unions.	Certificates of (Conscientious Objection) Exemption.
		Succ.	Insus-ceptible				
1897	6202	4606	28	182	689	697	
1898	6352	4355	27	161	974	835	
1899	6501	4706	34	173	924	629	
1900	6651	4770	18	280	909	625	49
1901	6622	4967	26	208	855	527	39
1902	6700	5008	30	160	747	715	40
1903	6743	5508	22	102	802	267	42
1904	6737	5551	28	93	834	189	32
1905	6784	5725	26	82	730	163	53
1906	6996	5831	97	97	767	195	66
Average for 10 Years, 1897-06. }	6629	5102	34	154	823	484	...
1907	6913	5613	35	94	709	287	175

ANNUAL REPORT OF THE CHIEF SANITARY INSPECTOR.

Health Office,

Town Hall, Sunderland,

MAY, 1909.

To the Chairman and Members of the Health Committee.

Gentlemen,

I have the honour of submitting to you my Fourteenth Annual Report, giving detailed information of the work performed by the Sanitary Inspector's Staff during the year ending 31st December, 1908.

INSPECTIONS.

During the year the Inspectors have made a total of 63,329 inspections, which include 2,577 inspections of Factories, Workshops, and Workplaces, 702 inspections of Domestic Workshops and Outworkers, 751 inspections of Bakehouses, 1,350 inspections of Cowsheds, Dairies, and Milkshops, 3,813 inspections of Slaughter-Houses and Butchers' Shops, Provision Shops, etc., and 205 inspections of Common Lodging Houses.

The inspection of Dwelling-Houses, including tenemented property, number 34,018, and 2,004 visits were made in respect of Infectious Disease notifications, to make inquiries as to probable source of infection, to leave verbal and printed instructions as to the best means of preventing the spread of disease, etc.

Advisory visits and consultative appointments with owners, agents, builders, and plumbers number 1,056; this branch of our work requires considerable time and attention from my Inspectors, but the value of such advice, independent and experienced, tends to become more and more recognized and appreciated.

During work in progress, inspections and re-inspections were made to the number of 8,994.

The Inspectors also made 5,232 calls in quest of information, serving of notices, etc., connected with the work of the Department (see Table I.).

NUISANCES.

During the year the number of notices served for the abatement of nuisances under the various Public Health Acts and Bye-Laws amounted to 13,849; of these 11,769 were intimation or Informal Notices, 1,437 were Statutory Notices, and 643 were served under the Factories and Workshops Act. Daily inspection of different portions of each district were made by each Inspector, many nuisances being abated without delay by direct request to the owner, by which action the service of notice becomes unnecessary. (See Tables II. and III.)

524 ash-bins out of repair were replaced by new ones.

Broken or otherwise defective w.c. basins were replaced by 225 new wash-down pedestal basins.

OVER-CROWDING.

68 Notices were served to abate over-crowding, compliance with which rendered magisterial proceedings unnecessary.

DRAIN TESTING.

This important branch of our work has been carried out in the usual systematic manner, special attention being given to efficiency in design and permanency in materials recommended.

The drains of 50 Dwelling-Houses have been tested by request, 21 of which proved defective; 185 were tested on suspicion of a nuisance, generally arising from personal observations by the Inspectors, and which suspicion in 74 cases proved correct; 141 tests were made of house drains and sanitary fittings, after cases of Enteric Fever or Diphtheria had occurred on the premises; in 35 cases defects of a more or less serious character were discovered; the testing of 1,211 new drains was carried out, the water test being generally employed, defects in 121 cases were discovered, the total number of drains tested being 2,046

COMPLAINTS.

The number of complaints received at the Office during the year number 183. The average number of complaints for the five preceding years was 276. The regularly declining number of complaints received may fairly be claimed as a satisfactory reflection of the work performed during recent years. Of the 183 complaints received, 77 after investigation proved groundless, 40 related to choked w.c.'s, the nuisance in this latter respect being usually abated by the use of the "plunger" lent from this Office; 10 requests were made to test the drainage system of large Dwelling-Houses, either as a measure of precaution, or on the advice of the Medical Attendant.

STRUCTURAL ALTERATIONS.

Under this heading there is a considerable reduction in the number of privies and ashpits abolished and water-closets substituted, as compared with 1907, the numbers being 768 and 1,589 respectively. This may be accounted for by reason of the acute depression in trade existing in the borough during the year.

The drains of 660 premises were either repaired or reconstructed; 121 bath, sink, or lavatory waste-pipes were renewed; the length of new earthenware drain pipes laid or re-laid amounted to 9,150 feet of 4-inch pipes, and 86 feet 6-inch pipes; defective soil and outlet ventilating shafts were re-placed by heavy 4-inch cast iron soil and ventilating pipes, to the extent of 292 feet

INFECTIOUS DISEASES.

Only one case of Smallpox was notified during the year.

The number of visits made by the Inspectors after cases of Enteric Fever, Scarlet Fever, and Diphtheria were 628. Cholera and Smallpox contacts caused 55 visits.

336 patients were removed to the Borough Sanatorium for treatment there ; the number of rooms disinfected after cases of infectious disease were 1,342 ; 6,035 articles of wearing apparel, beds, bedding, etc., were removed, and disinfected by the Steam Disinfector.

TENEMENTED HOUSES.

Tenemented house property has been carefully and regularly inspected, no less than 22,965 visits having been made ; 7,469 notices were served on tenants to limewash yards, passages, etc. ; a large number of rooms have been measured and placed on the register ; 330 notices have been served on owners to register such rooms, under the Bye-Laws for " Houses let in Lodgings."

DAIRIES AND COWSHEDS.

There are at present 11 Cowsheds within the borough, the approximate number of cows being 184 ; the number of Dairies and Milkshops on the register is 590, the visits of inspection to these places numbering 1,266. In a number of cases slight infringements of the Act were met by a verbal notice from the District Inspector, and in only 20 cases was it necessary to proceed by service of notice. Two cases of infectious disease were notified from milkshops, and in both cases the sale of milk was discontinued until the removal or recovery of the patient, and disinfection of the premises.

SLAUGHTER-HOUSES AND BUTCHERS' SHOPS.

The visits paid to Slaughter-Houses and Butchers' Shops number 3,182.

The approximate number of Butchers' Shops within the borough is 221, 78 of these are used for slaughtering, and in 39 cases slaughtering is carried on in the back premises in the yard; there are also 23 separate premises used as Slaughter-Houses; altogether there are 140 different premises used as Slaughter-Houses. With a few exceptions these premises were erected for anything but Slaughter-Houses, and are ill-fitted and badly equipped for their adopted purpose; the walls and ceilings are usually of permeable material, and the floors frequently out of repair. Their condition generally leaves much to be desired, and withal they are so widely scattered over the borough as to render efficient inspection during slaughtering practically impossible.

COMMON LODGING-HOUSES.

There are 21 Common Lodging-Houses, with accommodation for 848 lodgers. There was one application to be registered as a keeper of a Common Lodging-House, which was granted. There have been two prosecutions during the year. For a breach of the Bye-Laws, the case was dismissed on the defendant putting 20s. in the Poor Box. For keeping an unregistered Common Lodging-House, the defendant was fined 20s. and costs, and in default was committed to prison for one month.

OFFENSIVE TRADES.

The offensive trades carried on in the borough number 158, these have been regularly visited.

FACTORIES AND WORKSHOPS.

The Factories in the borough number 242. On the register there are 623 Workshops and 96 Workplaces. There are also 153 Domestic Workshops in the town, making in all a total of 1,114.

The Workshops employ 1,278 males and 1,354 females. Owing to the general depression it is practically impossible to even estimate the number of persons who find employment in

the Workplaces. 7,083 inspections have been made, and 643 notices for nuisances or contraventions of the Acts have been served.

16 new conveniences have been provided during the year, 10 as a result of notices served, 4 on request, and 2 which stood over from last year.

See Tables I. and XIII. respectively.

OUTWORKERS.

The total number of lists returned in compliance with Section 107 Factory and Workshops Act is 88, as against 84 last year, giving 220 names, showing an increase of 22 Outworkers over last year. With but one or two exceptions these Outworkers' premises are kept very clean, and it is satisfactory to note that during the past twelve months not a single case of notifiable disease has been reported as having occurred on premises occupied by Outworkers.

SAMPLES OF FOOD, DRUGS, AND WATER.

The number of samples taken within the Borough during the year totalled 522; of these 230 were taken under the "Sale of Food and Drugs Acts," 56 of which were informal samples of food and drugs, and 292 samples of water and milk were taken for bacteriological examination (for detailed results of which see Medical Officer of Health's Report). Of the samples taken under the "Sale of Food and Drugs Act," 9 were the subject of magisterial proceedings, details of which will be found in Table XVIII. As is generally the case, the largest number of adulterated samples occur with milk and butter, two articles which lend themselves readily to the malpractices of the dishonest trader, and which would puzzle an expert to detect by either sight, smell, or taste. Under present conditions it is impossible to do more than has been done to ensure a better state of things; for it is a matter of general complaint by Health Authorities throughout the country that when adulteration is detected and the offender proceeded against the fine is usually so inadequate to

the offence as to have no effect as a deterrent. To a trader wilfully dishonest 20s. and costs is easily recovered in the course of a few days. Only recently a case was reported in the Midlands where a milk dealer over a period of 14 years had been fined 9 times, the total sum in fines and costs amounting to £169, but on the tenth occasion he was sentenced to three months hard labour, upon hearing which he expressed his intention of retiring from the milk trade. The moral is obvious.

CLERICAL WORK.

There were reported to the Health Committee 182 persons who had failed to comply with notices served upon them requiring the abatement of nuisances, when the Committee gave instructions for summonses being issued. Letters were sent communicating this fact to the persons responsible. 161 complied with the notices without further action, but in the remaining 21 cases summonses were issued.

In addition to reports, notices, and ordinary routine office work, the following correspondence, circulars, etc., have been sent out:—

Circular letters notifying outbreaks of Infectious Diseases in dwelling houses were sent, as follows:—

To the Infirmary	104
To the Public Libraries	364
To the Public Laundries	1,196

To the Day Schools 183 circular letters were sent, and 89 to Sunday Schools, 129 circular letters were sent to firms employing Outworkers, requesting them to forward lists of Outworkers to the Department, and 939 letters were written, whilst 392 circular letters were dispatched from the office respecting notices, which had not received attention.

In conclusion, I have great pleasure in again recording the loyal and hearty co-operation which I have received from each member of the Health Office Staff, and especially from Mr. J. S. Watson, my Deputy.

I am, Gentlemen,

Your obedient Servant,

JOHN PENNOCK,

Chief Sanitary Inspector.

May, 1909.

TABLE I.

Showing Visits made by each Inspector.

INSPECTIONS.	No. 1 District.	No. 2 District.	No. 3 District.	No. 4 District.	No. 5 District.	No. 6 District.	No. 6A District.	Disinfectors	Workshops Inspector.	Totals.
INSPECTIONS OF WORKSHOPS, &c. :—										
Factories	10	...	...	6	...	...	6	...	574	596
Workshops .....	...	...	...	...	...	...	...	...	1981	1981
Workplaces (including Restaurant Kitchens) .....	...	...	...	...	...	...	...	...	210	210
Domestic Workshops .....	...	...	...	...	...	...	...	...	134	134
Outworkers .....	...	...	...	...	...	...	...	...	358	358
Employers of Outworkers .....	...	...	...	...	...	...	...	...	13	13
Shop Hours Act : "Inquiries" ...	...	...	...	...	...	...	...	...	33	33
Ditto Early Closing	...	...	...	...	...	...	...	...	145	145
Bakehouses	3	...	...	...	...	...	...	...	748	751
Seats for Shop Assistants .....	...	...	...	...	...	...	...	...	17	17
Laundries ..	...	...	...	3	...	...	...	...	22	25
Cowsheds	1	67	3	...	3	...	2	...	8	84
Dairies and Milk Shops .....	...	...	...	1	6	...	1	...	1258	1266
Ice Cream Shops ..	3	...	...	...	...	...	...	...	112	115
Slaughter Houses and Butchers' Shops	27	2960	16	71	40	39	29	...	...	3182
Fish and Fruit Shops	9	562	8	33	5	8	6	...	...	631
Appointments and Advisory Visits..	146	119	86	119	420	82	84	...	...	1056
Visits to Dwelling Houses	851	958	2201	2435	2657	258	1693	...	...	11053
Dwelling Houses, <i>re</i> Infectious Diseases	95	37	74	157	151	52	62	1321	...	1949
Dwelling Houses, <i>re</i> Smallpox and Cholera Contacts	7	...	11	29	...	8	...	...	...	55
Tenemented Houses	3974	4661	...	2245	3616	3551	4768	150	...	22963
Common Lodging Houses	87	60	...	2	...	...	56	...	...	205
Inspections of Works in Progress, Drains, W.C.'s, &c.	1212	1084	2205	537	974	1887	1095	...	...	8994
Calls made	1384	361	544	616	558	854	415	...	...	5232
Sale of Food and Drugs Acts	53	...	35	7	24	36	60	...	79	294
Bacteriological Samples	31	37	91	17	38	54	24	...	...	292
Tripe and Skin Preparers, &c.	12	96	...	...	...	2	2	...	...	112
Fried Fish Shops	20	...	...	3	4	15	13	...	219	274
Marine Stores ..	1	...	...	2	57	3	4	...	243	310
Other Offensive Trades .....	...	...	...	...	...	...	...	...	239	239
Stables, Mews, &c.	6	...	...	7	4	9	21	...	...	47
Other Visits	1	...	...	...	5	2	2	...	690	700
Smoke Observations .....	...	...	...	11	...	...	...	...	...	11
Total Inspections	8433	11002	5274	6301	8562	6860	8343	1471	7083	63329

TABLE II.

SUMMARY OF NOTICES for the Abatement of Nuisances
served during 1908.

Nature of Notice.	Preliminary.		Statutory.		Totals
	Owner.	Occupier	Owner.	Occupier	
To Cleanse Premises .....	...	94	1	19	114
" " after Infectious Disease .....	...	529	...	...	529
To Abate Nuisances arising from					
" Drains	317	4	146	...	467
" Water-Closets	447	38	139	...	624
" Privies and Ash-Pits	571	...	632	...	1203
" Yard Pavements	179	12	108	...	299
" Dilapidated Houses	393	...	186	...	579
" Defective Spouts, &c.	534	...	174	...	708
" Animals and Fowls	6	14	18	10	48
" Overcrowding	28	30	6	4	68
" Manure and Refuse	55	13	41	18	127
To Limewash Dwelling Houses .....	...	7469	...	...	7469
" " Yards and Passages	578	27	...	...	605
" " Factories, Workshops, &c. ....	...	160	...	...	160
To Abate Other Nuisances	99	318	101	1	519
To Register "Houses Let in Lodgings"	330	...	...	...	330
Totals	3537	8708	1552	52	13849

TABLE III.

Showing Notices served in each District.

	No. 1 District.	No. 2 District.	No. 3 District.	No. 4 District.	No. 5 District.	No. 6 District.	No. 6A. District.	Workshops Inspector.	TOTALS.
To Cleanse Premises	17	14	...	18	6	27	32	...	114
To Cleanse Premises after Infectious Disease	72	40	79	100	125	52	61	...	529
To abate Nuisance arising from:—									
Drains	150	45	20	35	86	69	57	5	467
Water-Closets	155	156	27	63	66	68	89	...	624
Privies and Ashpits	275	194	143	120	235	155	57	24	1203
Yard Pavements	58	72	14	23	31	76	25	...	299
Dilapidated Houses	140	200	12	80	46	30	31	40	579
Defective Spouts, &c.	110	75	57	177	78	142	69	...	708
Animals and Fowls	3	25	...	4	4	7	5	...	48
Overcrowding	11	26	2	...	5	4	16	4	68
Manure and Refuse	33	55	1	3	6	5	9	15	127
To Lime-Wash Dwelling Houses	2612	2234	...	588	1076	830	129	..	7469
" Yards and Passages	210	160	...	110	98	...	27	...	605
" Factories, Workshops, &c. ....	...	...	...	..	...	...	...	160	160
To Register "Houses Let in Lodgings" ...	52	...	...	52	109	48	69	...	330
To Abate Other Nuisances	16	...	10	1	24	31	42	395	519
TOTALS	3914	3306	365	1374	1995	1544	708	643	13849

TABLE IV.
COMPLAINTS RECEIVED AT THE HEALTH OFFICE,
and attended to during the year 1908.

NATURE OF COMPLAINTS.	Unfounded.	Totals.
Smoke Nuisance	1	3
Overcrowding	2	10
Defective Roofs and Spouts	1	19
Dirty Yards and Rooms	4	22
Yard Pavement out of Repair .....	...	1
*Drains out of Repair	9	52
Animals kept as a nuisance	1	2
Water Closets out of Repair	4	40
Privies and Ashpits out of Repair .....	...	7
Miscellaneous	5	27
Total	27	183

* 10 of these were requests to test drains, not actual complaints.

TABLE V.
STRUCTURAL WORK DONE.

Waterclosets :—		Dust Bins :—	
Old W.C. Basins removed ...	97	- Repaired	7
New "Wash-down" Basins fixed	225	New galvanized iron bins provided.....	524
W.C. Drains cleared ...	158		
Structural repairs	12	Yard Pavements :—	
Urinals :—		Cleansed.....	16
Cleansed or repaired	11	Repaired	52
New Urinals provided.....	4	Cemented or Paved	88
Soil and Ventilation Pipes :—		Dwelling Houses :—	
Pipes repaired	3	Internal repairs	315
New Piping fixed (length) 3,599 ft. 4 ins.		Roof	122
Flushing Cisterns :—		Spouts renewed or repaired	364
New Cisterns fixed	39	Overcrowding	24
Cisterns repaired	224	Domestic water supply provided	25
Drains :—		Cleanse and Limewash :—	
Drains unstopped.....	113	Dwelling rooms.....	2560
„ repaired.. ..	547	Staircases and Passages	3106
Bath, Sink, and Lavatory wastes	121	Sanitary conveniences.....	204
New Stoneware Pipes laid (length), 86 ft. 6-in., 9150 ft. 4-in.		Yard pavements	260
New heavy iron pipes laid (length), 292 ft. 4-in.		Animals kept as a nuisance. .	6
Privies :—		Accumulation of Manure :—	
Repaired	21	Removed	50
Abolished and w.c.'s substituted	768	Pit repaired	1
Ashpits :—		New pits provided	2
Repaired ...	1	Unsound Food seizures :—	
Abolished and dust bins substituted	783	Meat—Carcases 35 — 22,172 lbs.	
		Offals	58
		Fruit and Vegetables, 1,176 lbs.	
		Samples :—	
		Bacteriological	292

TABLE VI.
DRAIN TESTING.

Reason for Testing.	Nature of Test.			Total.	Defective.
	Water.	Chemical.	Smoke.		
Drains Tested on Complaint	13	13	24	50	21
„ on Suspicion of Nuisance...	29	110	46	185	74
„ after Infectious Disease ...	27	106	8	141	35
Work in progress	1163	18	30	1211	121
Drains Retested	439	3	17	459	29
Totals	1671	250	125	2046	280

TABLE VII.
DISINFECTING.

Articles.	Disinfected.	Destroyed.	Rooms Fumigated.	No.
Beds.....	780	13		
Mattresses	292	15		
Blankets..	860	3		
Pillows	337	1		
Bolsters	554	...		
Sheets.....	804	...		
Shawls.....	98	...		
Quilts	900	...		
Carpets	113	...		
Sundries.....	1297	...		
Totals	6035	32		1342

TABLE VIII.
DAIRIES, COWSHEDS, AND MILKSHOPS.

NUMBER OF COWSHEDS...11.	APPROXIMATE NUMBER OF COWS...184.
Inspection of Cowsheds.....	84
„ Dairies and Milkshops	1266
	<u>1350</u>
Notices to Register for Sale of Milk	126
Circular Letters	18
To Cease Selling Milk, contrary to Act	12
Dirty Milk Vessels	5
	<u>161</u>

REGISTERED COMMON LODGING HOUSES.

TABLE IX.

LOCALITY OF HOUSE.	No. of Rooms.	No. of Lodgers.	No. of Single Beds.	No. of Double Beds.	No. of Beds under the Registered Accommodation.
4 and 5, Bedford Street.....	12	76	67	4	1
3 and 4, Charles Street	11	37	37	—	—
41, 42, and 43, Spring Garden Lane	11	41	19	10	2
38, Spring Garden Lane	6	21	3	9	—
6, Maud's Lane	8	38	38	—	—
1, Horn's Lane	8	36	36	—	—
10, Church Street East	6	36	36	—	—
39, Lombard Street	2	6	6	—	—
2, Queen Street East... ..	6	47	21	13	—
2, Arras Lane.....	6	52	40	6	—
3, Mill Street	8	22	2	10	—
13, Havelock Street	5	15	5	5	—
3 and 4, Queen Street East	6	46	46	—	—
14 and 15, George Street East	16	44	44	—	—
29, High Street East	14	79	79	—	—
5 and 6, High Street East	14	185	185	—	—
170, High Street East	2	5	3	1	—
29, Warren Street	2	9	—	3	3
10, Old Grey Street	5	13	4	3	3
195½, High Street East.....	2	15	13	1	—
22, Lambton Street	6	25	25	—	—
Totals	156	848	709	65	9

TABLE X.

OFFENSIVE TRADES.

The Offensive Trades carried on in the Town are as follows :—

Gut Scraping Houses	2
Tallow Melting Works	1
Marine Store Dealers	33
Fish Curing Houses.....	3
Chemical Works	1
Tripe Preparers	11
Skin Warehouses	3
Oil and Grease Works.....	3
Paint Works.....	2
Fish Frying	99
<hr/>	
Total	158

TABLE XI.

TABLE OF FOOD CONDEMNED AND DESTROYED.

NATURE OF UNSOUND FOOD.	Quantity.
MEAT.	
Beef	20,452 lbs.
Pork	1,206 lbs.
Mutton	50 lbs.
Organs of Animals	58 sets.
VEGETABLES.	
Potatoes	336 lbs.
Tomatoes	840 lbs.

TABLE XII.
REPORTS FROM INSPECTORS.

District.	To Borough Surveyor.	To Cleansing Superin- tendent.	To Chief Inspector.	To Water Company.
1	8	42	8	...
2	20	34	12	...
3	5	36	6	...
4	4	37	6	...
5	7	52	...	...
6	8	19	6	5
6a	4	26	...	2
Total ...	56	246	38	7

TABLE XIII.
FACTORIES AND WORKSHOPS.

The following work has been performed by the Inspector appointed
for this purpose.

VISITS OF INSPECTION.	
Factories and Workshops :—	
Factories	574
Workshops	1981
Workplaces, including Restaurant Kitchens	210
Domestic Workshops and Laundries	156
Outworkers, Home.....	358
" Employers of.....	13
Offensive Trades	701
Bakehouses	748
Shop Hours' Act, Enquiries	33
" " Early Closing	145
Seats for Shop Assistants	17
Dairies and Cowsheds.....	26
Milk Shops	1240
Ice Cream Shops.....	112
Food and Drugs Acts.....	79
Other Visits.....	690
Total Inspections	7083

TABLE XIV

Shewing the Notices, &c., served by the
Workshops Inspector.

To Cleanse or Limewash Factory or Workshop	101
" " Bakehouses	26
" " Restaurant Kitchens..	8
" " Sanitary Conveniences	24
" " Outworkers' Premises	1
To abate Nuisance from :—	
Defective Sanitary Convenience	8
" Drains	5
" Walls, Floors, Ceilings, Roofs, Spouts, etc.	22
Accumulations of Trade Refuse	15
To abate Overcrowding	4
To provide Light and Ventilation.....	1
" Ventilation to Bakehouse	1
" Suitable and sufficient Sanitary Conveniences.....	6
" Hoods to Gas Stoves	6
" Separate Sanitary Conveniences for Sexes	7
" Screens to W.C.'s..	1
" Proper Fasteners to Conveniences..	2
" List of Outworkers	129
" Seats for Shop Assistants	—
" Hoods to Fish Frying Stoves.....	10
To Display Abstract, Factory and Workshop Act	15
Margarine not labelled	8
Dairies and Cowsheds :—	
To Register for Sale of Milk	126
" " Circulars.....	18
To Cleanse Dairy and Milk Vessels	12
To cease using Dairy or Milkshop contrary to Act.....	5
To protect Milk Vessels from dust or other contaminations	3
Reports to H.M. Factory Inspector :—	
No Abstract Displayed	15
Removals	5
Defects Remedied	10
Reports to other Authorities.....	2
Other Reports :—	
To Town Clerk's Department	1
" Chief Inspector	19
" Chief Constable	3
" Borough Surveyor	22
" Borough Analyst	1
" Home Office	1
Totals.....	643

TABLE XV.

FACTORY AND WORKSHOPS ACTS

Showing the Number of Registered **Factories** in the Borough.

FACTORIES.	No. of Factories.	FACTORIES.	No. of Factories.
Ale Bottlers	6	Joiners	25
Artificial Stone Maker	1	Laundries	8
Bakers	5	Millers	5
Bicycle Makers	2	Mineral Water Manufacturers	6
Bookbinders	4	Model Maker	1
Boot and Shoe Makers	6	Organ Builder	1
Bottle Maker	1	Paint Manufacturers	2
Box Makers	2	Paper Bag Maker	1
Brass Founders	7	Picture Frame Maker.....	1
Brewers.....	6	Potters	2
Brick Makers	4	Plumber	1
Brush Maker	1	Preserve Makers	3
Cabinet Makers	11	Printers.....	28
Carriage Builders	3	Rope Manufacturers	6
Cattle Spice Maker	1	Sail and Flag Makers.....	2
Cement Manufacturer	1	Sculptor.....	1
Compass Makers	4	Shipbuilders and Repairers.....	13
Coppersmith	1	Ships' Lamp Makers	2
Dyer	1	Steel Maker.....	1
Electrical Engineers	2	Steering Wheel Maker	1
Engineers	28	Stocking Knitter.....	1
File Maker	1	Stone Dressers	3
Finings Manufacturer	1	Tent Maker.....	1
Firewood Factory	1	Timber Sawyers	5
Galvanizer.....	1	Tobacco Manufacturer	1
Gas Manufacturer	1	Whiting Manufacturer	1
Glass Manufacturers	2	Window Blind Maker.....	1
Glass Works.....	1	Wood Turners	2
Ice Cream Maker	1		
Ironfounders.....	11		242

TABLE XVI.

Showing the Number of Registered Workshops, Nature of Trades,
and Number of Employees.

TRADES.	Number of each.	Em- ploying		TRADES.	Number of each.	Em- ploying.	
		Males.	Females.			Males.	Females.
Artificial Stone Makers ...	1	6	..	Mattress Makers.....	5	37	15
Bakers and Confectioners..	74	62	145	Milliners and Dressmakers	191	12	969
Bicycle Makers.....	6	9	..	Model Makers	3	15	..
Blacksmiths	18	52	..	Motor Repairer	1	2	..
Block and Mast Makers...	2	4	..	Paper Bag Maker	1	..	2
Boat Builders	4	23	..	Picture Frame Makers ...	7	14	..
Botanical Brewer.....	1	4	..	Pipe Makers.....	4	17	2
Boot and Shoe Makers ...	49	92	..	Plasterers	2	24	..
Brush Makers	2	7	10	Plumbers	26	142	..
Cabinet Makers	31	119	..	Rope Maker	1	6	..
Cartwrights	8	25	..	Sausage Maker.....	2	2	..
Cigarette Maker	1	..	2	Sculptors	5	18	..
Coach Builder	1	12	..	Stained Glass Artist	1	1	..
Coopers	4	12	..	Stocking Knitters	3	..	17
Disinfectant Maker.....	1	2	2	Sugar Boilers	3	7	9
Electrical Engineer	1	2	..	Tailors	65	215	148
Engravers	1	2	..	Tinsmiths	7	13	..
French Polishers.....	7	20	..	Umbrella Maker	1	1	1
Gun Maker	1	1	..	Upholsterers	6	44	20
Harness Makers	6	26	..	Watchmakers	9	23	..
Horse Shoers	9	25	..	Weighing Machine Maker	1	4	..
Joiners	46	171	..	Window Blind Maker ...	1	1	..
Laundries	2	..	12	Wire Workers	2	4	..
				Totals	623	1278	1354

TABLE XVII.

SHOWING THE NUMBER OF DOMESTIC WORKSHOPS.

Nature of Business.	Number of each.
Bakers and Confectioners	70
Bicycle Maker	1
Boot and Shoe Repairers	26
Clogger	1
Cooper	1
Dressmakers	14
French Polishers	2
Ice Cream Makers	12
Joiners	6
Laundries	3
Locksmith.....	1
Picture Frame Maker	1
Stocking Knitter.....	1
Tailors	7
Tinsmiths	4
Toymaker	1
Watchmaker	2
Total	153

TABLE XVIII.

SHOWING THE NUMBER OF WORKPLACES.

Nature of Business.	Number of each.
Ale Bottler	1
Auctioneer	1
Bacon Washer	1
Bottle Exchange	2
Builders' Merchants	2
Haulage Contractors, &c.	21
Oil Company's Works.....	1
Paper Warehouse	1
Photographers	9
Pottery Warehouse.....	1
Painter	1
Restaurant Kitchens	36
Slaters	2
Salt Packers.....	6
Shipchandlers	2
Sign and Ticket Writers	4
Timber Merchant	1
Warehousemen.....	3
Wharfinger	1
Total	96

TABLE XIX.
MAGISTERIAL PROCEEDINGS.

Particulars of Complaints.	No.	How disposed of.	Penalties Imposed.		
			£	s.	d.
Selling Whiskey under proof ...	2	Fined £2 and costs each	4	18	0
Breach of slaughter-house bye-laws	1	Dismissed—20/- put into poor box			
Adulterated milk	2	1 dismissed.			
		1 fined £2 and costs	2	9	0
Adulterated butter... ..	5	1 dismissed.			
		1 dismissed on payment of costs	0	9	0
		1 fined £5 and costs	5	9	0
		2 fined £2 and costs each	4	18	0
Spouts out of repair	4	3 withdrawn ; paid costs	0	12	0
	1	Abatement order to abate in 14 days.....	0	9	0
House roof out of repair	1	Withdrawn ; paid costs	0	4	0
Roof and spouts out of repair ...	1	Withdrawn ; paid costs	0	4	0
Breach of drainage regulations...	4	1 fined £1 and costs	1	18	0
		1 fined £2 and costs	2	18	0
		2 ordered to pay costs of Court...	1	16	0
Yard pavement out of repair ..	1	Abatement order granted with costs	0	9	0
Water-closet drain out of repair	1	Withdrawn ; paid costs	0	4	0
Yard drain, privy and ashpit out of repair	1	Abatement order to abate in 14 days.....	0	9	0
Passage walls and floor out of repair	1	Abatement order to abate in 14 days.....	0	9	0
Drain out of repair	1	Withdrawn ; paid costs	0	4	0
Accumulation of water in cellars	2	Withdrawn ; paid costs	0	8	0
Insufficient closet accommodation for workshops	2	Withdrawn ; paid costs	0	8	0
House unfit for human habitation	1	Closing order made.			
Premises out of repair	1	Withdrawn ; paid costs	0	4	0
Privy and ashpit out of repair	1	Adjourned—paid costs	0	4	0
Keeping unregistered common lodging house.....	1	Fined 20/- and costs, or in default 1 month			

TABLE XX.
ANALYSIS OF FOOD AND DRUGS.

Articles Analysed.	No Analysed.	Result of Analysis.			Extent of Adulteration.	Result of Proceed-ings.
		Genu-ine.	Adult-erated.	Doubt-ful.		
Milk	100	76	20	4	20·0 per cent. def. in milk fat 3·3 do. do. 28·3 do. do. 4·7 per cent. def. in non-fatty solids ... 10·0 per cent. def. in milk fat... 5·6 do. do. 6·6 do. do. 10·0 do. do. 6·6 do. do. 3·3 do. do. 6·6 do. do. 1·4 per cent. def. in non-fatty solids 6·6 per cent. def. in milk fat 10·0 do. do. 6·6 do. do. 5·4 per cent. def. in non-fatty solids 2·6 do. do. 10·0 per cent, def. in milk fat 6·6 do. do. 10·0 do. do. 7·7 per cent. def. in non-fatty solids	Dismissed Cautioned £2 & costs. Cautioned do.
Butter	63	55	6	2	100 per cent. margarine ... 100 per cent. margarine and ·09 per cent boric acid.. 100 per ceut. margarine and ·0·9 per cent. boric acid ... 100 per cent. margarine and ·09 per cent. boric acid ... 100 per cent. margarine and ·07 per cent. boric acid 100 per cent. margarine and ·022 per cent. boric acid ... ·12 do. do.	Informal. £5 & costs £1 & costs £1 & costs Dismissed CostsofCrt. Informal.
Lard	8	8				
Margarine	7	4	3		16·5 per cent. butter fat..... 4·0 per cent. in excess of butter fat and ·12 per cent. boric acid 4·0 per cent. in excess of butter fat.....	Informal. Withdrawn Withdrawn
Forward.....	178	143	29	6		

TABLE XX.—Continued.

Articles Analysed.	No. Analysed.	Result of Analysis.			Extent of Adulteration.	Result of Proceed- ings.
		Genu- ine.	Adult- erated.	Doubt- ful.		
Brought forward	178	143	29	6		Informal.
Cheese	3	3	...	...
Cream	4	4	...	...
Baking Powder	1	1	...	...
Pepper	3	3	...	...
Ground Ginger	2	2	...	...
Oatmeal	3	3	...	...
Strawberry & Apple Jam.....	1	1	...	...	Contained very small quantity of Strawberry, and was coloured with a coal tar colouring matter.	"
Strawberry Jam	2	2	...	...	Contained coal, tar colouring matter.	"
Black Currant Jam...	2	2	...	...
Raspberry Jam	1	1	...	...		"
Blackberry & Apple Jam	1	1	...	...		"
Chocolate Macaroons	1	1	...	...		"
Deville'd Ham	1	1	...	...		"
Chumps	1	1	...	...		"
Milk Chocolate Bananas	1	1	...	...		"
Self-raising Flour ...	1	1	...	...		"
Cocoa	1	1	...	...		"
Cocoa Mixture	2	2	...	...	30 per cent. cocoa, 50 per cent. sugar, 20 per cent. arrow- root and starch.	"
					Ditto ditto	"
Coffee	3	3	...	...	Contained 29 per cent. Chicory.	"
					" 16 "	"
					" 46 "	"
Coffee Mixture	2	2	...	...	" 40 "	"
					" 32 "	"
Glycerine	4	4	...	...		"
Liquorice Powder ...	4	4	...	...		"
Compound Liquorice Powder.....	1	1	...	...		"
Castor Oil.....	4	4	...	...		"
Lobster Paste	3	3	...	...	Contained 26 per cent. boric acid	"
					" 14 "	"
					" 20 "	"
Totals	230	195	29	6		

Two samples of Brandy and four of Whiskey were purchased in 1907, and appear in my report for that year, but, being analysed in 1908, they appear in the Public Analyst's Report for the latter year. (See page 47.)

